

Author Search

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 15:58:36 ON 01 MAY 2007

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FILE COVERS 1907 - 1 May 2007 VOL 146 ISS 19

FILE LAST UPDATED: 30 Apr 2007 (20070430/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> => FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 16:00:32 ON 01 MAY 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 1 May 2007 VOL 146 ISS 19

FILE LAST UPDATED: 30 Apr 2007 (20070430/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

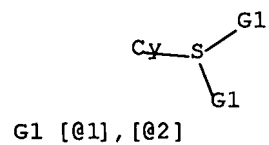
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> D QUE L32 Y

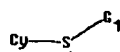
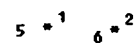
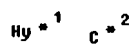
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SB/ELS) AND F>3 AND S/ELS

L2 STR

Hy 1 2



Structure attributes must be viewed using STN Express query preparation:
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chain nodes :
1 2 3 4 5
ring/chain nodes :

6

chain bonds :

1-2 1-3 1-4

exact/norm bonds :

1-2 1-3 1-4

G1:[*1],[*2]

Match level :

1:CLASS 2:CLASS 3:Atom 4:CLASS 5:Atom 6:CLASS

Generic attributes :

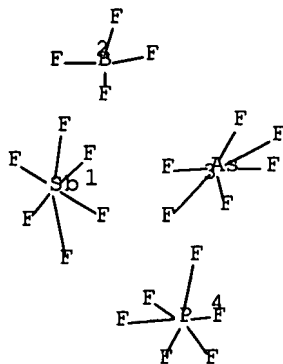
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Saturation : Unsaturated

L6 2370 SEA FILE=REGISTRY SUB=L1 SSS FUL L2

L13 STR

G1



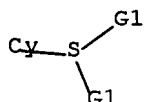
G1 [G1], [G2], [G3], [G4]

Structure attributes must be viewed using STN Express query preparation:

Uploading strB.str

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L18 STR

Hy 1 Ak² Cb 3

G1 [01], [02], [03]

Structure attributes must be viewed using STN Express query preparation:

Uploading strC.str

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L21      360 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20(L)PREP/RL
L28      961 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DATE M?/AU
L29     7227 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KIMURA H?/AU
L30     4439 SEA FILE=HCAPLUS ABB=ON  PLU=ON  YAMASHITA S?/AU
L31     2078 SEA FILE=HCAPLUS ABB=ON  PLU=ON  YAMAMOTO J?/AU
L32        3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L28 OR L29 OR L30 OR L31)
          AND L21

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=> D IBIB ED ABS HITSTR 1-3 L32

L32 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:14364 HCAPLUS Full-text

DOCUMENT NUMBER: 142:94307

TITLE: Process for production of monosulfonium salts,
cationic polymerization initiators, curable
compositions containing them and products of curing

INVENTOR(S): **Date, Masashi; Kimura, Hideki;
Yamashita, Shinji; Yamamoto, Jiro**

PATENT ASSIGNEE(S): San-Apro Limited, Japan

SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005000801	A1	20050106	WO 2004-JP8971	20040625
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
 SN, TD, TG

EP 1640363 A1 20060329 EP 2004-746440 20040625
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
 US 2006247401 A1 20061102 US 2005-562444 20051227
 PRIORITY APPLN. INFO.: JP 2003-180712 A 20030625
 WO 2004-JP8971 W 20040625

OTHER SOURCE(S): MARPAT 142:94307

ED Entered STN: 07 Jan 2005

AB A monosulfonium salt bearing one sulfonio group in the mol. and having a
 purity of $\geq 96\%$ is produced without purification with a decrease in the amount
 of residual unreacted reactants. An aryl compound (a), a sulfoxide compound
 (b), a dehydrating agent (c), and a salt (d) of an alkali metal or an alkaline
 earth metal with BF_4 , PF_6 , AsF_6 , or SbF_6 are charged into a reaction system,
 followed by the charging of an inorg. acid (e), whereby the aryl compound (a)
 is condensed with the sulfoxide compound (b) through dehydration.

IT **71449-78-0P**, (4-Phenylthiophenyl)diphenylsulfonium
 hexafluoroantimonate **75482-18-7P**, (4-
 Phenylthiophenyl)diphenylsulfonium hexafluorophosphate
225663-98-9P

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**
(Preparation); USES (Uses)

(production of monosulfonium salts for cationic polymerization initiators

and

curable compns. containing them and cured products)

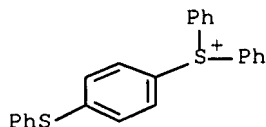
RN 71449-78-0 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, (OC-6-11)-
 hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47480-44-4

CMF C24 H19 S2

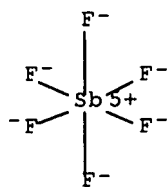


CM 2

CRN 17111-95-4

CMF F6 Sb

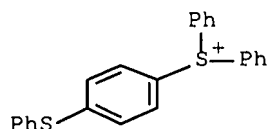
CCI CCS



RN 75482-18-7 HCAPLUS
 CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, hexafluorophosphate(1-) (9CI)
 (CA INDEX NAME)

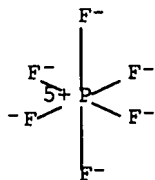
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CRN 47480-44-4
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CM 2

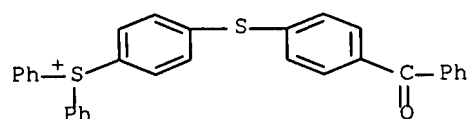
CRN 16919-18-9
 CMF F6 P
 CCI CCS



RN 225663-98-9 HCAPLUS
 CN Sulfonium, [4-[(4-benzoylphenyl)thio]phenyl]diphenyl-,
 hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

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CRN 197796-25-1
 CMF C31 H23 O S2

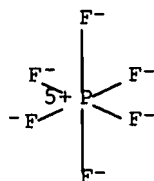


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1154735 HCAPLUS Full-text

DOCUMENT NUMBER: 142:75398

TITLE: Active energy ray curable stereolithographic resin composition with good storage stability

INVENTOR(S): Ito, Takashi; Hagiwara, Tsuneo; **Kimura, Hideki**
; **Date, Masashi; Yamamoto, Jiro**

PATENT ASSIGNEE(S): CMET Inc., Japan; San-Apro Ltd.

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004113396	A1	20041229	WO 2004-JP9276	20040624
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 112004001165	T5	20060504	DE 2004-112004001165	20040624

US 2007060682
PRIORITY APPLN. INFO.:

A1

20070315

US 2005-562098

20051221

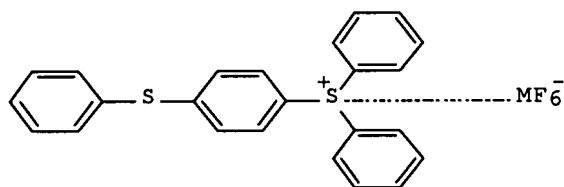
JP 2003-180470

A 20030625

WO 2004-JP9276

W 20040624

ED Entered STN: 30 Dec 2004
GI



I

AB Title composition has high sensitivity in photocure, and a stereolithog. product excellent in dimensional accuracy, lithog. precision, water resistance, moisture resistance, and mech. properties can be produced therefrom through light irradiation at a high rate with satisfactory productivity. The stereolithog. resin composition comprises a cationically polymerizable organic compound, a radical-polymerizable organic compound, a cationic polymerization initiator sensitive to actinic energy rays comprising a compound I with purity $\geq 80\%$, and a radical polymerization initiator sensitive to active energy rays, wherein M = antimony or phosphorus and the broken line between S⁺ and MF₆⁻ indicates an ionic linkage. Thus, 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexanecarboxylate 500, Rikaresin BPO 20E 500, NK Ester BPE 4 500, NK Ester ATM 4P trimethylolpropane polypropylene glycol ether triacrylate 400, NK Ester A-DCP dicyclopentadienyl diacrylate 300, and 3-methyl-3-hydroxymethyloxetane 300 parts were mixed, 90 parts 50% (4-thiophenylphenyl)diphenylsulfonium hexafluoroantimonate with purity 98% (preparation given) solution and 45 parts Irgacure 184 were added therein and mixed to give a composition with viscosity 300 mPa-s and good storage stability, which was processed into a stereolithog. article with tensile strength 61 MPa, tensile modulus 2100 MPa, tensile elongation 5.4%, flexural strength 73 MPa, flexural modulus 2770 MPa, and good appearance.

IT **71449-78-0P**, (4-Phenylthiophenyl)diphenylsulfonium hexafluoroantimonate

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**

(Preparation); USES (Uses)

(cationic polymerization catalyst; active energy ray curable stereolithog. resin composition with good storage stability)

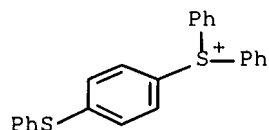
RN 71449-78-0 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47480-44-4

CMF C24 H19 S2

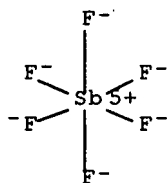


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:465967 HCAPLUS Full-text

DOCUMENT NUMBER: 137:46997

TITLE: Process for producing arylsulfonium salt by condensation of diaryl sulfoxide with diaryl sulfide in presence of strong acid

INVENTOR(S): Date, Masashi; Kimura, Hideki; Yamamoto, Jiro

PATENT ASSIGNEE(S): San-Apro Limited, Japan

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048101	A1	20020620	WO 2001-JP11042	20011217
W: US				
RW: AT, BE, CH, PT, SE, TR				
JP 2002241363	A	20020828	JP 2001-381430	20011214
JP 3837066	B2	20061025		
EP 1350789	A1	20031008	EP 2001-270525	20011217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
US 2004030158	A1	20040212	US 2003-450517	20030616
US 7060858	B2	20060613		
PRIORITY APPLN. INFO.:			JP 2000-381963	A 20001215

OTHER SOURCE(S): CASREACT 137:46997; MARPAT 137:46997

ED Entered STN: 21 Jun 2002

AB Disclosed is a process for directly producing the target arylsulfonium salt not via a metathesis step without using a large excess of an acid. The process comprises reacting an aryl compound (A) in which at least one of the carbon atoms of the aryl group has a hydrogen atom bonded thereto with a sulfoxide compound (B) represented by the formula R_1SOR_2 (wherein R_1 and R_2 may be the same or different and each represents an optionally substituted hydrocarbon or heterocyclic group) in the presence of a strong acid (C) represented by the formula $HMXmYn$ (wherein M represents a group IIIa or Va element of the periodic table; X represents halogeno; Y represents hydroxy; and m and n are integers satisfying the relationships $m+n=4$ and $0 \leq n \leq 3$ when M is a Group IIIa element or satisfying the relationships $m+n=6$ and $0 \leq n \leq 2$ when M is a Group Va element). This process gives the target arylsulfonium salts of high purity in high yields and can recover, e.g. acetic acid and acetic anhydride as solvent and dehydrating agent, resp., and is reduced in the amount of alkali required for neutralizing waste water as well as in the generation of waste liquid. Arylsulfonium salts are useful as photocationic polymerization initiators, photo-acid generator for resists, or thermal latent hardeners for epoxy resins (no data). Thus, 13.99 g acetic anhydride was gradually added dropwise to a mixture of di-Ph sulfoxide 4.05, acetic acid 4.05, and 75% aqueous hexafluorophosphoric acid 5.67 g under cooling, stirred for 30 min, and warmed to room temperature, followed by adding dropwise 3.61 g di-Ph sulfide, and the resulting mixture was stirred at room temperature for 1 h. The reaction mixture was heated to 70°, evaporated under reduced pressure to recover the solvent (4.5 g), cooled to room temperature, dissolved in 20 mL CH_2Cl_2 , washed once with 20 mL H_2O and three-times with 10 mL H_2O , and evaporated for removal of CH_2Cl_2 to give a tar (9.73 g, 94% purity) containing di-Ph sulfide and di-Ph sulfoxide as impurities in 97% yield. To the tar was added 10 mL ethanol and stirred upon which crystals precipitated. The crystals were filtered off and dried to give 8.96 g (4-phenylthiophenyl)diphenylsulfonium hexafluorophosphate ($\geq 99\%$).

IT **75482-18-7P**, (4-Phenylthiophenyl)diphenylsulfonium hexafluorophosphate **104434-07-3P**, (4-Phenylthiophenyl)diphenylsulfonium tetrafluoroborate **127279-74-7P**, (4-Methoxyphenyl)diphenylsulfonium hexafluoroantimonate
 RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (process for producing arylsulfonium salts by condensation of diaryl sulfoxides with diaryl sulfides in presence of strong acid)

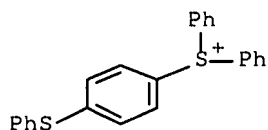
RN 75482-18-7 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, hexafluorophosphate(1-) (9CI)
 (CA INDEX NAME)

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CRN 47480-44-4

CMF C24 H19 S2

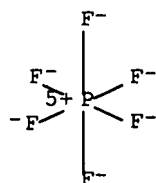


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CRN 16919-18-9

CMF F6 P

CCI CCS



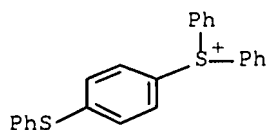
RN 104434-07-3 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, tetrafluoroborate(1-) (9CI)
(CA INDEX NAME)

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CRN 47480-44-4

CMF C24 H19 S2

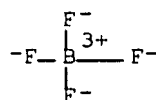


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CRN 14874-70-5

CMF B F4

CCI CCS



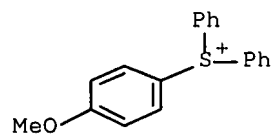
RN 127279-74-7 HCAPLUS

CN Sulfonium, (4-methoxyphenyl)diphenyl-, (OC-6-11)-hexafluoroantimonate(1-)
(9CI) (CA INDEX NAME)

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CRN 70084-23-0

CMF C19 H17 O S

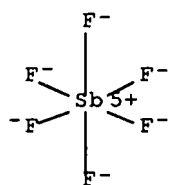


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



REFERENCE COUNT:

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THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

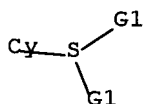
Serial No.:10/562,444
Structure Search

=> D QUE L27

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SB/ELS) AND F>3 AND S/ELS

L2 STR

Hy 1 2



G1 [01], [02]

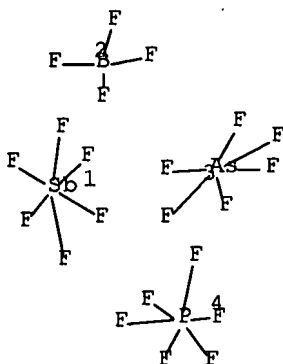
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L8 136887 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYMERIZATION CATALYSTS+OLD,N
T/CT

L13 STR

G1

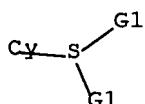


G1 [01], [02], [03], [04]

Structure attributes must be viewed using STN Express query preparation.

L15 2143 SEA FILE=REGISTRY SUB=L6 SSS FUL L13

L18 STR

Hy¹ Ak² Cb³

G1 [01], [02], [03]

Structure attributes must be viewed using STN Express query preparation.

L20 879 SEA FILE=REGISTRY SUB=L15 SSS FUL L18
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 L22 75 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND L8
 L23 55 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND P/DT
 L24 49 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 AND (PY<=2003 OR AY<=2003
 OR PRY<=2003)
 L25 20 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 NOT L23
 L26 17 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 AND PY<=2003
 L27 66 SEA FILE=HCAPLUS ABB=ON PLU=ON (L24 OR L26)

=> S L27 NOT L32
 L33 63 L27 NOT L32

=> D IBIB ED ABS HITSTR L33 1-63

L33 ANSWER 1 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:569461 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:99065
 TITLE: Radiation-curable jet-printing inks showing successful
 curing under high and low humidity and printing
 therewith
 INVENTOR(S): Okubo, Kimihiko; Nishizeki, Masato; Miura, Norio
 PATENT ASSIGNEE(S): Konica Minolta Medical & Graphic, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 84 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005171122	A	20050630	JP 2003-414434	20031212 <--

PRIORITY APPLN. INFO.:

JP 2003-414434

20031212 <--

OTHER SOURCE(S): MARPAT 143:99065

ED Entered STN: 01 Jul 2005

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The inks contain oxetane compds. I (LT1 = O, S, CRT111RT112; RT101-RT112 = H, substituent; pT1 = 0 1; qT1, rT1 = 0-3). The inks may contain radiation-sensitive acid generators (e.g., sulfonium salts) and epoxy compds. or vinyl ethers. The inks are discharged on jet printers to land on receptors and then exposed to actinic rays to form fused ink images. Thus, a pigment-excluded ink containing oxetane II, triarylsulfonium salt III, 2-(4-methoxy-phenyl)-3,3-dimethyl-oxetane caused fast gelation on a receptor upon exposure under 20%RH and 80%RH, resp.

IT **73981-32-5P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(photopolymn. initiators; photocurable jet printing inks containing sp. oxetanes and showing successful curing independent of humidity)

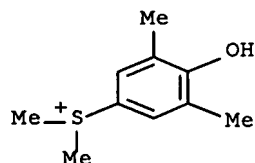
RN 73981-32-5 HCAPLUS

CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)dimethyl-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 57836-01-8

CMF C10 H15 O S

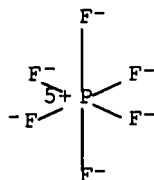


CM 2

CRN 16919-18-9

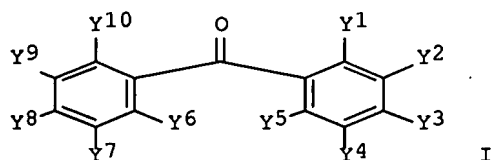
CMF F6 P

CCI CCS



L33 ANSWER 2 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:394654 HCAPLUS Full-text
 DOCUMENT NUMBER: 142:447833
 TITLE: Sulfonium salt photoinitiators and use thereof
 INVENTOR(S): Liu, Yuxia
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S.
 Ser. No. 700,754.
 CODEN: USXXCO
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005095531	A1	20050505	US 2004-918946	20040816 <--
US 2005095528	A1	20050505	US 2003-700754	20031104 <--
KR 2005043648	A	20050511	KR 2004-88840	20041103 <--
EP 1538149	A2	20050608	EP 2004-26159	20041104 <--
EP 1538149	A3	20050629		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				
CN 1637052	A	20050713	CN 2004-10098187	20041104 <--
JP 2005187799	A	20050714	JP 2004-320965	20041104 <--
PRIORITY APPLN. INFO.:			US 2003-700754	A2 20031104 <--
			US 2004-918946	A 20040816
OTHER SOURCE(S): MARPAT 142:447833				
ED Entered STN: 09 May 2005				
GI				



AB Sulfonium salts I [Y1-10 = H, Cl, Br, I, F, aryl, Z, or Z-substituted aryl; ≥1 of Y1-10 = Z or Z-substituted aryl; Z = SAr₂+M-1; Ar = Ph, C1-24-alkylphenyl, C1-24-alkoxyphenyl, acyl, thiophenyl, phenylthiophenyl, C1-24-alkylthiophenyl, C1-24-dialkylphenylthiophenyl, or C1-24-dialkoxyphenylthiophenyl; M = SbF₆, PF₆, AsF₆, BF₄, B(C₆F₅)₄, or Ga(C₆F₅)₄] are manufactured and are useful as photoinitiators with improve thermal stability in UV-curable compns. such as adhesives, coatings, and sealants.

IT **851047-70-6P 851049-29-1P**
 RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**
(Preparation); USES (Uses)
 (benzophenone derivative/analog sulfonium salt photoinitiators for
 UV-curable adhesives, coatings, and sealants)

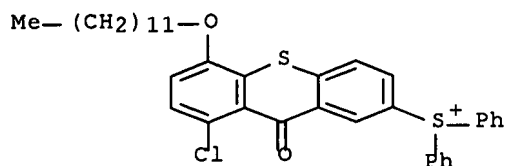
RN 851047-70-6 HCAPLUS

CN Sulfonium, [8-chloro-5-(dodecyloxy)-9-oxo-9H-thioxanthen-2-yl]diphenyl-,
(OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 851047-69-3

CMF C37 H40 Cl O2 S2

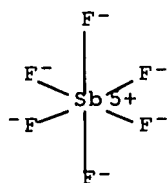


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



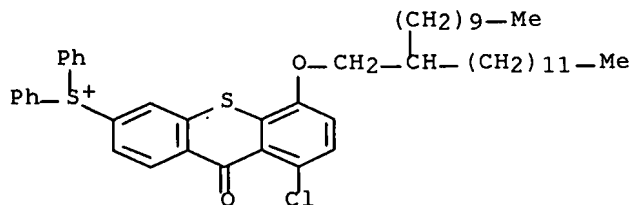
RN 851049-29-1 HCAPLUS

CN Sulfonium, [8-chloro-5-[(2-decyltetradecyl)oxy]-9-oxo-9H-thioxanthen-3-yl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 851049-28-0

CMF C49 H64 Cl O2 S2

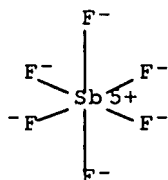


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



L33 ANSWER 3 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:394653 HCAPLUS Full-text
 DOCUMENT NUMBER: 142:447832
 TITLE: Sulfonium salt photoinitiators and use thereof
 INVENTOR(S): Liu, Yuxia; Herr, Donald E.
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 18 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005095528	A1	20050505	US 2003-700754	20031104 <--
US 2005095531	A1	20050505	US 2004-918946	20040816 <--
KR 2005043648	A	20050511	KR 2004-88840	20041103 <--
EP 1538149	A2	20050608	EP 2004-26159	20041104 <--
EP 1538149	A3	20050629		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				
CN 1637052	A	20050713	CN 2004-10098187	20041104 <--
JP 2005187799	A	20050714	JP 2004-320965	20041104 <--
PRIORITY APPLN. INFO.:			US 2003-700754	A2 20031104 <--
			US 2004-918946	A 20040816

OTHER SOURCE(S): MARPAT 142:447832

ED Entered STN: 09 May 2005

AB Sulfonium salt photoinitiators with improved thermal stability, useful for UV-curable adhesives, coatings, and sealants, have structures containing 2 benzene rings bridged by a carbonyl group. A typical photoinitiator was manufactured by stirring 4 g 1-chloro-4-dodecyloxythioxanthone with 1.9 g di-Ph sulfoxide in a mixture of 50 mL CH₂Cl₂ and 30 mL Ac₂O at 0-10°, slowing adding 4 g H₂SO₄, warming to room temperature stirring 48 h, adding 30 mL water and 2.5 g NaSbF₆, and stirring 12 h.

IT **851047-70-6P 851047-73-9P 851047-78-4P**

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**
(Preparation); USES (Uses)

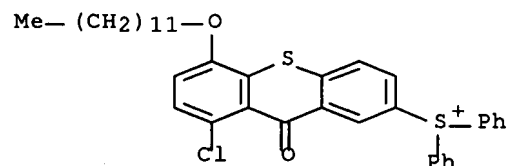
(benzophenone derivative/analog sulfonium salt photoinitiators for UV-curable adhesives, coatings, and sealants)

RN 851047-70-6 HCAPLUS
 CN Sulfonium, [8-chloro-5-(dodecyloxy)-9-oxo-9H-thioxanthen-2-yl]diphenyl-,
 (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 851047-69-3

CMF C37 H40 Cl O2 S2

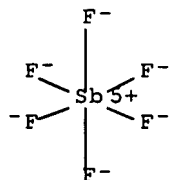


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS

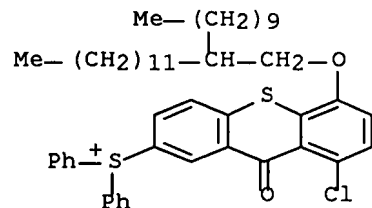


RN 851047-73-9 HCAPLUS
 CN Sulfonium, [8-chloro-5-[(2-decyltetradecyl)oxy]-9-oxo-9H-thioxanthen-2-yl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 851047-72-8

CMF C49 H64 Cl O2 S2

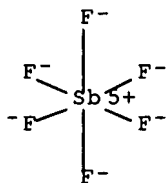


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



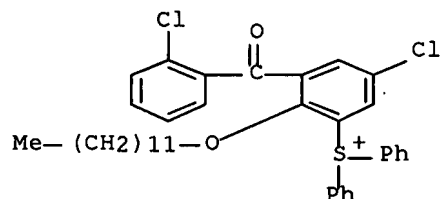
RN 851047-78-4 HCAPLUS

CN Sulfonium, [5-chloro-3-(2-chlorobenzoyl)-2-(dodecyloxy)phenyl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 851047-77-3

CMF C37 H41 Cl2 O2 S

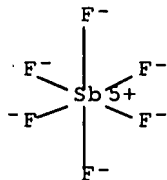


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



ACCESSION NUMBER: 2005:284162 HCAPLUS Full-text
 DOCUMENT NUMBER: 142:336806
 TITLE: Photoinitiators having triarylsulfonium and
 arylsulfinate ions
 INVENTOR(S): Kalgutkar, Rajdeep S.
 PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
 SOURCE: U.S. Pat. Appl. Publ., 24 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005070621	A1	20050331	US 2003-672554	20030926 <--
US 7026367	B2	20060411		
WO 2005034885	A1	20050421	WO 2004-US25281	20040805 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1684698	A1	20060802	EP 2004-780169	20040805 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1859893	A	20061108	CN 2004-80028033	20040805 <--
JP 2007506836	T	20070322	JP 2006-527986	20040805 <--
US 2006111463	A1	20060525	US 2006-275831	20060131 <--
PRIORITY APPLN. INFO.:			US 2003-672554	A 20030926 <--
			WO 2004-US25281	W 20040805

OTHER SOURCE(S): MARPAT 142:336806

ED Entered STN: 03 Apr 2005

AB Comps. are provided that include a photoinitiator system for free radical polymerization reactions. More specifically, the photoinitiator includes an arylsulfinate ion and a triarylsulfonium ion. Polymerization methods are also provided those include the photoinitiator in a photopolymerizable composition Addnl., triarylsulfonium arylsulfinate salts are disclosed.

IT **57840-38-7P**, Triphenylsulfonium Hexafluoroantimonate
 RL: IMF (Industrial manufacture); RCT (Reactant); **PREP**
(Preparation); RACT (Reactant or reagent)
 (photoinitiators having triarylsulfonium and arylsulfinate ions)

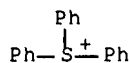
RN 57840-38-7 HCAPLUS

CN Sulfonium, triphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 18393-55-0

CMF C18 H15 S

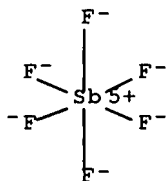


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



REFERENCE COUNT: 106 THERE ARE 106 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 5 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1125484 HCAPLUS Full-text

DOCUMENT NUMBER: 142:57324

TITLE: Radiation-sensitive cationic polymerization initiator compositions, their manufacture, and storage-stable radiation-curable resin compositions containing them

INVENTOR(S): Kimura, Kentaro; Tachikawa, Hiroyuki

PATENT ASSIGNEE(S): Asahi Denka Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004359605	A	20041224	JP 2003-159873	20030604 <--
			JP 2003-159873	20030604 <--

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 142:57324

ED Entered STN: 24 Dec 2004

AB The initiator compns. contain 99:1-1:99 molar ratio of Ar1Ar2S+Y1SY2S+Ar3Ar4.2X- and Ar5Ar6S+Y3SAr7.X- [Ar1-Ar7 = (un)substituted Ph; Y1-Y3 = (un)substituted p-C6H4; substituent = halo, C1-12 (hydroxy)alkyl, C1-12 (hydroxy)alkoxy, (un)substituted Ph, (un)substituted phenoxy, NO2; X = anion] with disulfide content <1%. Thus, a composition comprising 3,4-epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate 75, 1,4-butanediol diglycidyl ether 27, and 75:25 molar ratio of Ph2S+-p-C6H4S-p-C6H4S+Ph2.(SbF6-)2 and Ph2S+-p-C6H4SPh.SbF6- was stored at 30° for 30 days to result in 0.8% increase of viscosity.

IT **71449-78-0P**, Diphenyl-4-(phenylthio)phenylsulfonium

hexafluoroantimonate **74227-35-3P**, Bis[4-(diphenylsulfonio)phenyl] sulfide bis(hexafluorophosphate)
75482-18-7P 105046-46-6P, Bis[4-(diphenylsulfonio)phenyl] sulfide bis(hexafluoroantimonate)
 RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**
(Preparation); USES (Uses)

(radiation-sensitive cationic polymerization initiator compns. for storage-stable radiation-curable resin compns.)

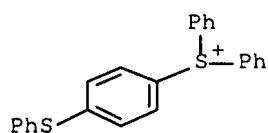
RN 71449-78-0 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47480-44-4

CMF C24 H19 S2

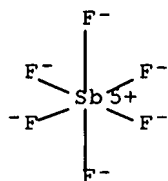


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



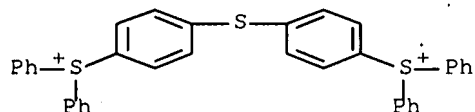
RN 74227-35-3 HCAPLUS

CN Sulfonium, (thiodi-4,1-phenylene)bis[diphenyl-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 74227-34-2

CMF C36 H28 S3

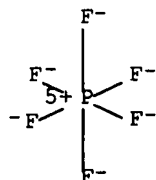


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



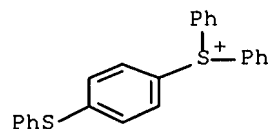
RN 75482-18-7 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 47480-44-4

CMF C24 H19 S2

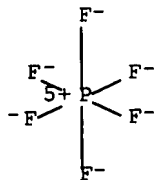


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 105046-46-6 HCAPLUS

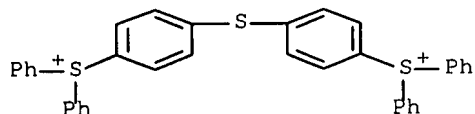
CN Sulfonium, (thiodi-4,1-phenylene)bis[diphenyl-, (OC-6-11)-

hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 74227-34-2

CMF C36 H28 S3

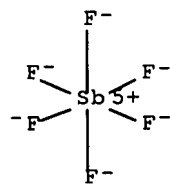


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



L33 ANSWER 6 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:287837 HCAPLUS Full-text

DOCUMENT NUMBER: 140:322315

TITLE: Aromatic sulfonium salt compounds, photo-acid
 generators and photopolymerizable compositions
 containing them, resin compositions for optical
 three-dimensional shaping, and method of optically
 forming three-dimensional shape

INVENTOR(S): Nakayashiki, Tetsuyuki; Tachikawa, Hiroyuki

PATENT ASSIGNEE(S): Asahi Denka Co.Ltd., Japan

SOURCE: PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004029037	A1	20040408	WO 2003-JP12226	20030925 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,				

PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
 TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IT, LU, MC, NL, PT, RO, SE, SI, SK, TR

AU 2003268671 A1 20040419 AU 2003-268671 20030925 <--
 EP 1557413 A1 20050727 EP 2003-748578 20030925 <--

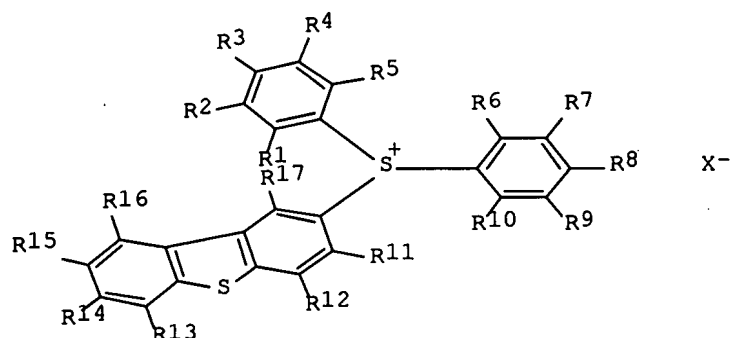
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

US 2006055088 A1 20060316 US 2005-529015 20050513 <--
 PRIORITY APPLN. INFO.: JP 2002-279416 A 20020925 <--
 JP 2003-85426 A 20030326 <--
 WO 2003-JP12226 W 20030925 <--

OTHER SOURCE(S): MARPAT 140:322315

ED Entered STN: 08 Apr 2004

GI



AB Photopolymerizable compns. useful for optical three-dimensional shaping contain photo-acid generators comprising I (R1-R17 = H, halo, NO2, OH, alkoxy, acyl, aryl, etc.; X- = SbF6-, PF6-, AsF6-, etc.). The resin compns. suffer no curing inhibition caused by oxygen, have satisfactory precision of curing, are highly sensitive to irradiation energy, and cure sufficiently deep. The resin compns. can be inhibited from generating benzene and are hence usable in a wide range of applications such as photoresists, inks for food-packaging materials, etc.

IT **677334-44-0P 677334-45-1P**

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**

(Preparation); USES (Uses)

(aromatic sulfonium salts as photo-acid generators for photopolymerizable compns. for optical three-dimensional shaping)

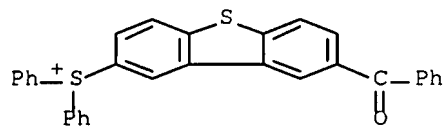
RN 677334-44-0 HCAPLUS

CN Sulfonium, (8-benzoyl-2-dibenzothienyl)diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 677334-43-9

CMF C31 H21 O S2

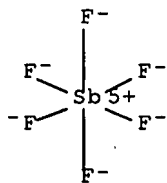


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



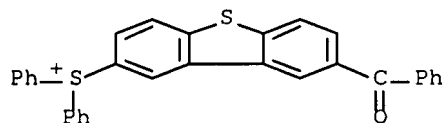
RN 677334-45-1 HCAPLUS

CN Sulfonium, (8-benzoyl-2-dibenzothienyl)diphenyl-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 677334-43-9

CMF C31 H21 O S2

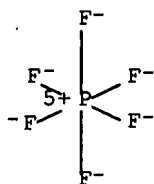


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 7 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:17875 HCAPLUS Full-text

DOCUMENT NUMBER: 140:61178

TITLE: Storage-stable actinic energy ray-curable ink-jet inks and their ink-jet recording process

INVENTOR(S): Sasa, Nobumasa

PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004002531	A	20040108	JP 2002-159432	20020531 <--
PRIORITY APPLN. INFO.:			JP 2002-159432	20020531 <--

ED Entered STN: 09 Jan 2004

AB The inks with good high temperature storage stability and suppressed skin irritation contain double salts of onium salts, thiopyrylium salts, or double salts of thiopyrilium salts. Thus, an ink having viscosity at 25° 30-32 mPa, containing C.I. Pigment Blue 15:3 5, alicyclic epoxy resin (CEL 2021P) 40, oxetane (Aron OXT 221) 70, and a double salt of 3-methoxy-4-diazodiphenylamine hexafluorophosphate and boron trifluoride ethylamine salt as a photopolymn. initiator 2.5 parts, was ejected from a hot ink-jet head to a poly(ethylene terephthalate) substrate and exposed to UV to give fixed images with low dose.

IT **638205-02-4P**

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**
(Preparation); USES (Uses)

(photopolymn. initiators for storage-stable actinic energy ray-curable ink-jet inks and their ink-jet recording process)

RN 638205-02-4 HCAPLUS

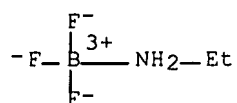
CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, (OC-6-11)-hexafluoroantimonate(1-), compd. with (T-4)-(ethanamine)trifluoroboron (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 75-23-0

CMF C2 H7 B F3 N

CCI CCS



CM 2

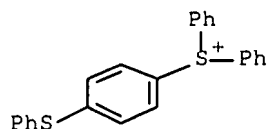
CRN 71449-78-0

CMF C24 H19 S2 . F6 Sb

CM 3

CRN 47480-44-4

CMF C24 H19 S2

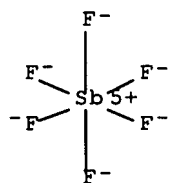


CM 4

CRN 17111-95-4

CMF F6 Sb

CCI CCS



L33 ANSWER 8 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:915401 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:94347
 TITLE: Photocationic and radical polymerizations of epoxides
 and acrylates by novel sulfonium salts
 AUTHOR(S): Takahashi, Eiji; Sanda, Fumio; Endo, Takeshi
 CORPORATE SOURCE: Specialty Polymers Research Department, R & D
 Laboratory for High-Performance Materials, Nippon Soda
 Company, Limited, Chiba, 290-0045, Japan
 SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry
 (2003), 41(23), 3816-3827
 CODEN: JPACEC; ISSN: 0887-624X

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 24 Nov 2003

AB Novel sulfonium salts [methyl-, 2-indanyl-, or 1-ethoxycarbonyl-ethyl methyl-2-naphthylsulfonium hexafluorophosphate and 2-indanyl-, 1-ethoxycarbonyl-ethyl-, 2-methyl-2-phenylpropyl-, 2-phenylpropyl-, 2-phenylethyl-, 2-(4-methoxyphenyl)ethyl-, or 3-(4-methoxyphenyl)-2-Pr methylphenylsulfonium hexafluorophosphates] were synthesized by the reaction of dimethylsulfate and the corresponding sulfides followed by anion exchange with KPF₆. These sulfonium salts could polymerize epoxy monomers at lower temps. than previously reported for benzylsulfonium salt initiators. In particular, sulfonium salts with naphthyl groups showed higher photoactivity than already reported for di(4-tert-butylphenyl)iodonium and triphenylsulfonium hexafluorophosphates. These sulfonium salts showed higher activity in photoradical polymerization and photocationic polymerization. The photopolymerization was accelerated by the addition of 4-methoxy-1-naphthol, N-ethylcarbazole, 2,4-dimethylthioxanthone, phenothiazine, and 2-ethyl-9,10-dimethoxyanthracene as photosensitizers.

IT 186419-14-7P 188731-58-0P 645403-91-4P

RL: CAT (Catalyst use); SPN (Synthetic preparation); **PREP****(Preparation)**; USES (Uses)

(photocationic and radical polymns. of epoxides and acrylates by novel sulfonium salts)

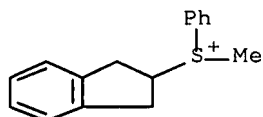
RN 186419-14-7 HCAPLUS

CN Sulfonium, (2,3-dihydro-1H-inden-2-yl)methylphenyl-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 186419-11-4

CMF C16 H17 S

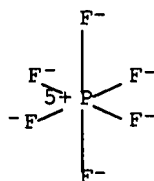


CM 2

CRN 16919-18-9

CMF F6 P

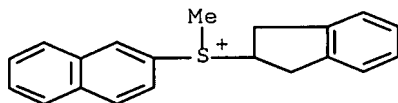
CCI CCS



RN 188731-58-0 HCAPLUS
 CN Sulfonium, (2,3-dihydro-1H-inden-2-yl)methyl-2-naphthalenyl-,
 hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

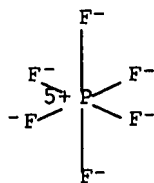
CM 1

CRN 188731-57-9
 CMF C20 H19 S



CM 2

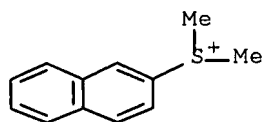
CRN 16919-18-9
 CMF F6 P
 CCI CCS



RN 645403-91-4 HCAPLUS
 CN Sulfonium, dimethyl-2-naphthalenyl-, hexafluorophosphate(1-) (9CI) (CA
 INDEX NAME)

CM 1

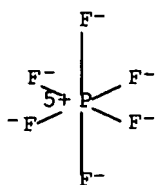
CRN 46184-88-7
 CMF C12 H13 S



CM 2

CRN 16919-18-9

CMF F6 P
CCI CCS

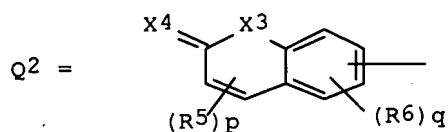
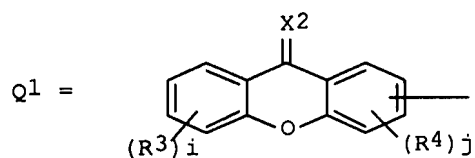
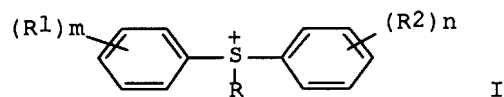


REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 9 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:719467 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:246323
 TITLE: Preparation of heterocycle-bearing onium salts and uses thereof
 INVENTOR(S): Ishihara, Masami; Urano, Yoji; Takahashi, Masahiro
 PATENT ASSIGNEE(S): Wako Pure Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 113 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003074509	A1	20030912	WO 2002-JP10605	20021011 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002343973	A1	20030916	AU 2002-343973	20021011 <--
EP 1481973	A1	20041201	EP 2002-775329	20021011 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1622943	A	20050601	CN 2002-828462	20021011 <--
CN 1854133	A	20061101	CN 2006-10081844	20021011 <--
TW 248930	B	20060211	TW 2002-91123790	20021016 <--
TW 249077	B	20060211	TW 2005-94106894	20021016 <--
US 2005233253	A1	20051020	US 2004-506485	20040902 <--
JP 2006089476	A	20060406	JP 2005-263288	20050912 <--
PRIORITY APPLN. INFO.:			JP 2002-56697	A 20020304 <--
			CN 2002-828462	A3 20021011 <--
			JP 2003-572977	A3 20021011 <--
			WO 2002-JP10605	W 20021011 <--
OTHER SOURCE(S):			CASREACT 139:246323; MARPAT 139:246323	

ED Entered STN: 14 Sep 2003
GI



AB The salts I [R = Q1, Q2; R1-R6 = halo, (halogen- or aryl-substituted) alkyl, (halogen- or lower alkyl-substituted) aryl; X2-X4 = O, S; A = anion; m, n = 0-5; i = 0-4; j = 0-3; p = 0-2; q = 0-3], such as (coumarin-7-yl)diphenylsulfonium hexafluorophosphate and diphenyl(xanthene-9-one-2-yl)sulfonium hexafluorophosphate, are prepared. The salts are useful as cationic photopolymer initiators or acid generators for chemical amplified resists.

IT **597583-41-0P 597583-44-3P**

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**
(Preparation); USES (Uses)

(preparation of heterocycle-bearing onium salts as cationic photopolymer initiators or acid generators for chemical amplified resists)

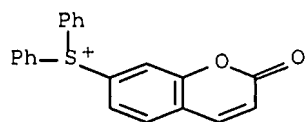
RN 597583-41-0 HCAPLUS

CN Sulfonium, (2-oxo-2H-1-benzopyran-7-yl)diphenyl-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 597583-39-6

CMF C21 H15 O2 S

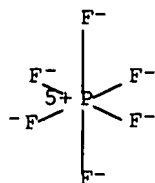


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



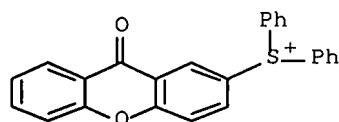
RN 597583-44-3 HCAPLUS

CN Sulfonium, (9-oxo-9H-xanthen-2-yl)diphenyl-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 597583-42-1

CMF C25 H17 O2 S

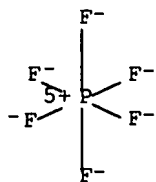


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 10 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:620201 HCAPLUS Full-text

DOCUMENT NUMBER: 139:277197

TITLE: Synthesis and characterization of second-generation
S,S-dialkyl-S-(dimethylhydroxyphenyl)sulfonium salt
photoinitiators

AUTHOR(S): Crivello, James V.; Ahn, Jinseo

CORPORATE SOURCE: New York State Center for Polymer Synthesis,
Department of Chemistry, Rensselaer Polytechnic
Institute, Troy, NY, 12180, USA

SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry
(2003), 41(16), 2556-2569
CODEN: JPACEC; ISSN: 0887-624X

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 13 Aug 2003

AB A new, simplified method has been developed for the synthesis of S,S-dialkyl-S-(dimethylhydroxyphenyl)sulfonium salt cationic photoinitiators. This novel method has successfully been used for the preparation of S,S-dialkyl-S-(3,5-dimethyl-4-hydroxyphenyl)sulfonium and S,S-dialkyl-S-(3,5-dimethyl-2-hydroxyphenyl)sulfonium salts showing a wide variation in the length and structure of the alkyl chains on the pos. charged sulfur atom. These photoinitiators can also be prepared with a wide variety of different anions. The manipulation of the lengths of the alkyl chains permits the design of compatible photoinitiators for highly nonpolar monomers and oligomers such as epoxy-functional silicones, epoxidized polybutadiene, and epoxidized vegetable oils. This article describes the synthesis and characterization of these photoinitiators.

IT 73981-32-5P 492460-38-5P 492460-40-9P
492460-42-1P 492460-44-3P 492460-46-5P
492460-48-7P 492460-50-1P 492460-52-3P
604814-87-1P

RL: CAT (Catalyst use); SPN (Synthetic preparation); **PREP**
(Preparation); USES (Uses)

(synthesis and characterization of second-generation
S,S-dialkyl-S-(dimethylhydroxyphenyl)sulfonium salt photoinitiators)

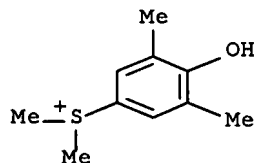
RN 73981-32-5 HCAPLUS

CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)dimethyl-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 57836-01-8

CMF C10 H15 O S

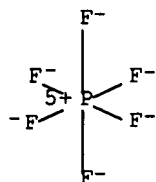


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



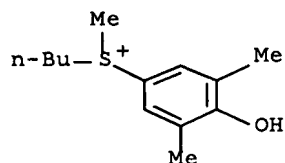
RN 492460-38-5 HCAPLUS

CN Sulfonium, butyl(4-hydroxy-3,5-dimethylphenyl)methyl-,
hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-37-4

CMF C13 H21 O S

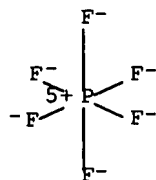


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



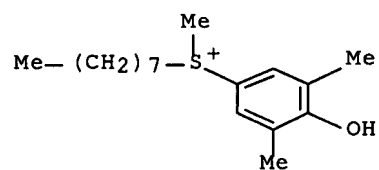
RN 492460-40-9 HCAPLUS

CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)methyloctyl-,
hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-39-6

CMF C17 H29 O S

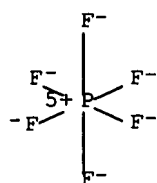


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



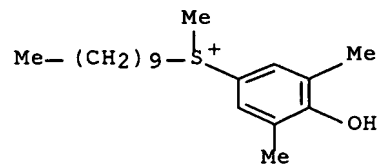
RN 492460-42-1 HCAPLUS

CN Sulfonium, decyl(4-hydroxy-3,5-dimethylphenyl)methyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-41-0

CMF C19 H33 O S

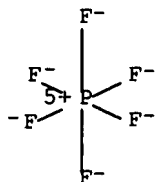


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



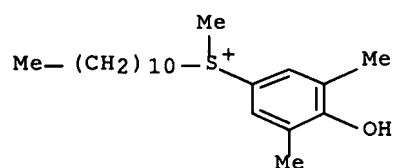
RN 492460-44-3 HCAPLUS

CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)methylundecyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-43-2

CMF C20 H35 O S

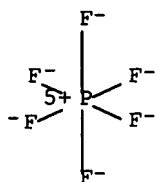


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



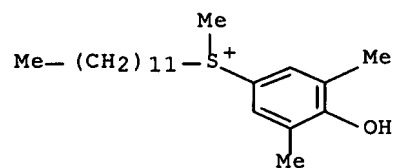
RN 492460-46-5 HCAPLUS

CN Sulfonium, dodecyl(4-hydroxy-3,5-dimethylphenyl)methyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-45-4

CMF C21 H37 O S

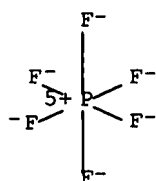


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



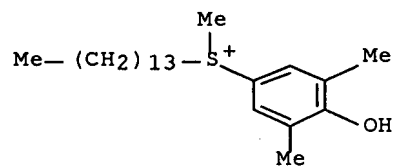
RN 492460-48-7 HCAPLUS

CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)methyltetradecyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-47-6

CMF C23 H41 O S

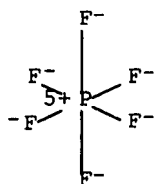


CM 2

CRN 16919-18-9

CMF F6 P

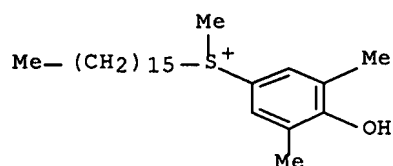
CCI CCS



RN 492460-50-1 HCAPLUS
 CN Sulfonium, hexadecyl(4-hydroxy-3,5-dimethylphenyl)methyl-,
 hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

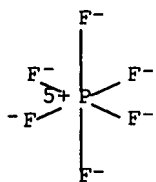
CM 1

CRN 492460-49-8
 CMF C25 H45 O S



CM 2

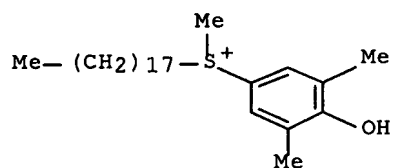
CRN 16919-18-9
 CMF F6 P
 CCI CCS



RN 492460-52-3 HCAPLUS
 CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)methyloctadecyl-,
 hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-51-2
 CMF C27 H49 O S

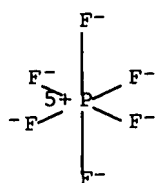


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



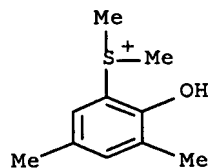
RN 604814-87-1 HCAPLUS

CN Sulfonium, (2-hydroxy-3,5-dimethylphenyl)dimethyl-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 64579-13-1

CMF C10 H15 O S

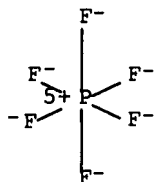


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 11 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:376813 HCAPLUS Full-text

DOCUMENT NUMBER: 138:385922

TITLE: Hybrid onium salts having iodonium and sulfonium salts in the molecules for cationic photopolymerization initiators or acid generators for chemical-amplification-type resists

INVENTOR(S): Ishihara, Masami; Maesawa, Tsuneaki; Urano, Yoji

PATENT ASSIGNEE(S): Wako Pure Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 108 pp.

CODEN: PIXXD2

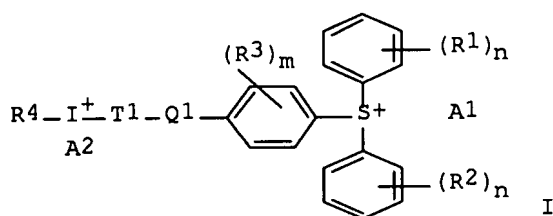
DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003040090	A1	20030515	WO 2002-JP11446	20021101 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
TW 246525	B	20060101	TW 2002-91132235	20021031 <--
AU 2002344452	A1	20030519	AU 2002-344452	20021101 <--
EP 1443042	A1	20040804	EP 2002-779991	20021101 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1578766	A	20050209	CN 2002-821640	20021101 <--
US 2005020710	A1	20050127	US 2004-494481	20040503 <--
US 7101918	B2	20060905		
PRIORITY APPLN. INFO.:			JP 2001-340144	A 20011106 <--
			WO 2002-JP11446	W 20021101 <--
OTHER SOURCE(S): MARPAT 138:385922				
ED Entered STN: 16 May 2003				
GI				



AB Title salts are represented by the general formula I, wherein R1 to R3 each independently represents halogeno, alkyl, haloalkyl, aryl, alkoxy, aryloxy, alkylthio, arylthio, or optionally substituted amino; Q1 represents a bond, oxygen, sulfur, or a lower alkylene chain; T1 represents optionally substituted alkylene or arylene; R4 represents optionally substituted alkyl, alkenyl, aryl, aralkyl, etc.; A1 and A2 each independently represents a counter anion; m is an integer of 0 to 4; and two n's each independently is an integer of 0 to 5. Thus, di-Ph sulfoxide 40.4, di-Ph sulfide 37.2, and trifluoromethanesulfonic acid 30.0 g were reacted to give 33.2 g diphenyl-4-phenylthiophenylsulfonium trifluoromethanesulfonate, 5.2 g of which was reacted with 1.07 g potassium iodate and 5.55 g potassium hexafluorophosphate to give 2.83 g bis(4-(4-(diphenylsulfonio)phenylthio)phenyl)iodonium tris(hexafluorophosphate) (II). A composition comprising 3,4-epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate 7, cyclohexene oxide 3, and 50% solution of II 0.20 g was applied on a glass plate and irradiated with light to give a cured film with pencil hardness HB after one day, compared with HB using diphenyliodonium hexafluorophosphate instead of II.

IT 524678-22-6P 524678-24-8P 524678-26-0P

524678-29-3P 524678-33-9P

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**
(Preparation); USES (Uses)

(preparation of iodonium and sulfonium hybrid onium salts for cationic photopolymer. initiators or acid generators for resists)

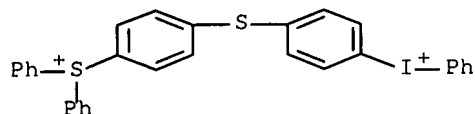
RN 524678-22-6 HCAPLUS

CN Sulfonium, diphenyl[4-[[4-(phenyliodonio)phenyl]thio]phenyl]-,
bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 524678-21-5

CMF C30 H23 I S2

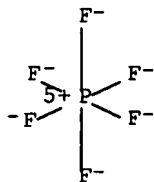


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

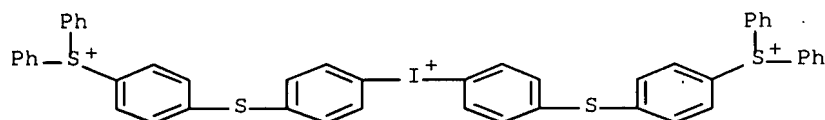


RN 524678-24-8 HCAPLUS
 CN Sulfonium, [iodoniumylidenebis(4,1-phenylenethio-4,1-phenylene)]bis[diphenyl-, tris[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 524678-23-7

CMF C48 H36 I S4

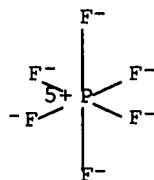


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

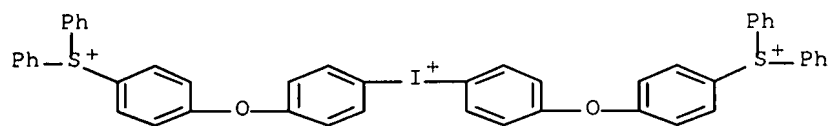


RN 524678-26-0 HCAPLUS
 CN Sulfonium, [iodoniumylidenebis(4,1-phenyleneoxy-4,1-phenylene)]bis[diphenyl-, tris[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 524678-25-9

CMF C48 H36 I O2 S2

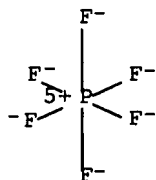


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



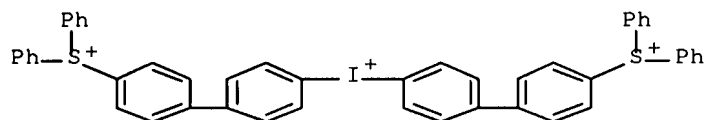
RN 524678-29-3 HCAPLUS

CN Sulfonium, [iodoniumylidenebis([1,1'-biphenyl]-4',4-diyl)]bis[diphenyl-, tris[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 524678-28-2

CMF C48 H36 I S2

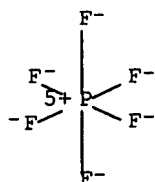


CM 2

CRN 16919-18-9

CMF F6 P

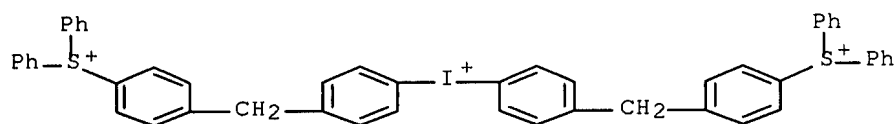
CCI CCS



RN 524678-33-9 HCAPLUS
 CN Sulfonium, [iodoniumylidenebis(4,1-phenylenemethylene-4,1-phenylene)]bis[diphenyl-, tris[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

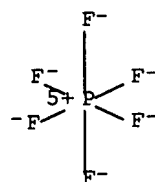
CM 1

CRN 524678-32-8
 CMF C50 H40 I S2



CM 2

CRN 16919-18-9
 CMF F6 P
 CCI CCS



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 12 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:211208 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:402143
 TITLE: Synthesis and characterization of efficient two-photon acid generators for 3D microfabrication
 AUTHOR(S): Wang, Jing; Zhou, Wenhui; Braun, Kevin L.; Barlow, Stephen; Kuebler, Stephen M.; Perry, Joseph W.; Marder, Seth R.
 CORPORATE SOURCE: Department of Chemistry, University of Arizona,

SOURCE: Tucson, AZ, 85721, USA
 Polymer Preprints (American Chemical Society, Division
 of Polymer Chemistry) (2003), 44(1), 970-971
 CODEN: ACPPAY; ISSN: 0032-3934
 PUBLISHER: American Chemical Society, Division of Polymer
 Chemistry
 DOCUMENT TYPE: Journal; (computer optical disk)
 LANGUAGE: English

ED Entered STN: 18 Mar 2003

AB In order to improve resolution of 3D microfabrication, two-photon acid generator (TPAG)s with biphenyl and fluorene core and covalently linked triarylamine dialkylsulfonium groups were prepared and characterized. In comparison to bis(styryl)benzene TPAGs, the biphenyl and fluorene TPAGs showed shorter wavelength of one-photon excitation and are expected to have shorter wavelength of two-photon excitation. The quantum yield of acid generation for the TPAGs were approx. the same as that for the benzene TPAG (about 0.5). The photopolymerization of cyclohexene oxide initiated by biphenyl TPAG showed 93% conversion after 10 min.

IT 530077-52-2P

RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);

PREP (Preparation); USES (Uses)

(photopolymerization catalyst; preparation and photon excitation and quantum yield of fluorene-butylphenylsulfinylaniline hexafluoroantimonate and initiator activity in photopolymerization of cyclohexene oxide)

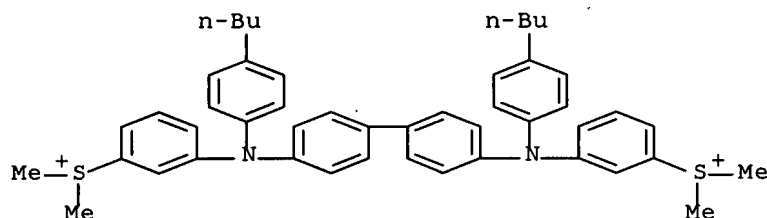
RN 530077-52-2 HCAPLUS

CN Sulfonium, [[1,1'-biphenyl]-4,4'-diylbis[[4-(4-butylphenyl)imino]-3,1-phenylene]]bis[dimethyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

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CRN 530077-42-0

CMF C48 H54 N2 S2

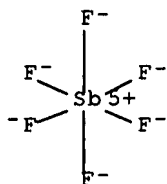


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



IT 530077-56-6P

RL: PRP (Properties); SPN (Synthetic preparation); **PREP****(Preparation)**

(preparation and photon excitation and acid generation quantum yield of biphenyl- and fluorene-butylphenylsulfinylaniline hexafluoroantimonates toward use in microfabrication)

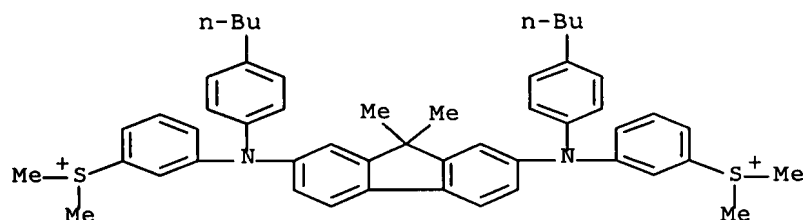
RN 530077-56-6 HCAPLUS

CN Sulfonium, [(9,9-dimethyl-9H-fluorene-2,7-diyl)bis[[(4-butylphenyl)imino]-3,1-phenylene]]bis[dimethyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 530077-47-5

CMF C51 H58 N2 S2

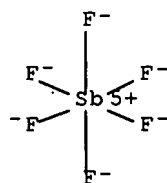


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



REFERENCE COUNT:

11

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 13 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:778260 HCAPLUS Full-text

DOCUMENT NUMBER: 137:302226

TITLE: Materials, methods, and uses for photochemical generation of acids and/or radical species

INVENTOR(S): Marder, Seth; Perry, Joseph; Zhou, Wenhui; Kuebler, Stephen M.; Cammack, J. Kevin

PATENT ASSIGNEE(S): USA

SOURCE: PCT Int. Appl., 181 pp.

CODEN: PIXXD2

DOCUMENT TYPE: **Patent**

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002079691	A1	20021010	WO 2002-US8227	20020401 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2443317	A1	20021010	CA 2002-2443317	20020401 <--
AU 2002306752	A1	20021015	AU 2002-306752	20020401 <--
EP 1390664	A1	20040225	EP 2002-757791	20020401 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004529913	T	20040930	JP 2002-578067	20020401 <--
US 2005173683	A1	20050811	US 2003-473365	20020401 <--
PRIORITY APPLN. INFO.:				
			US 2001-280672P	P 20010330 <--
			WO 2002-US8227	W 20020401 <--

OTHER SOURCE(S): MARPAT 137:302226

ED Entered STN: 11 Oct 2002

AB Compsds. and compns. which comprise ≥ 1 chromophore having simultaneous two-photon or multi-photon absorptivity and ≥ 1 acid- or radical-generator in close proximity to the chromophore are described in which the chromophore has a two-photon absorption cross-section $> 50 + 10\text{-}50 \text{ cm}^4\text{s/photon}$. Preferably, the generator comprises ≥ 1 sulfonium, selenonium, or iodonium group, or other acid- or radical generating group. The materials can be photo-patterned by one- or multiphoton excitation. Apparatus and methods for producing articles by such patterning, and the resulting articles, are also described.

IT **470483-29-5P**

RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; PROC (Process);

USES (Uses)

(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)

RN 470483-29-5 HCAPLUS

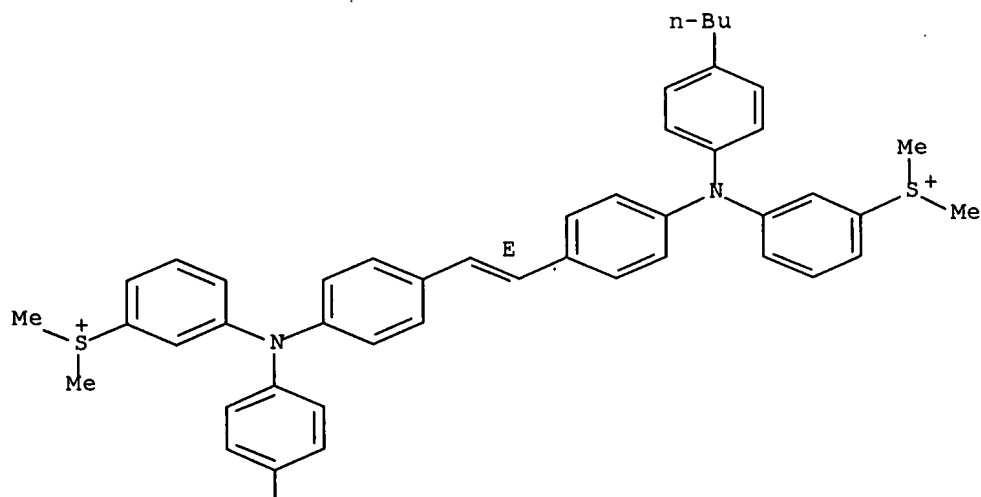
CN Sulfonium, [(1E)-1,2-ethenediylbis[4,1-phenylene[(4-butylphenyl)imino]-3,1-phenylene]]bis[dimethyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI)
(CA INDEX NAME)

CM 1

CRN 470483-23-9
CMF C50 H56 N2 S2

Double bond geometry as shown.

PAGE 1-A

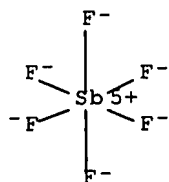


PAGE 2-A

n-Bu

CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



IT 470483-39-7P

RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)

(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)

RN 470483-39-7 HCAPLUS

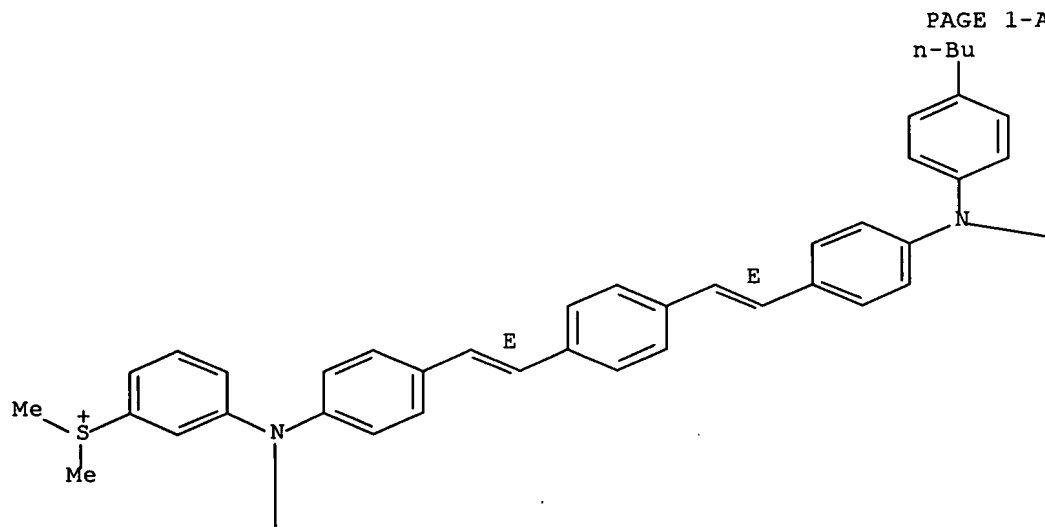
CN Sulfonium, [1,4-phenylenebis[(1E)-2,1-ethenediyl-4,1-phenylene[(4-butylphenyl)imino]-3,1-phenylene]]bis(dimethyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

CM 1

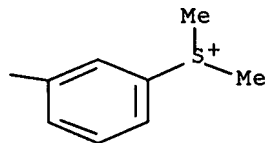
CRN 470483-38-6

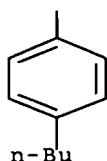
CMF C58 H62 N2 S2

Double bond geometry as shown.



PAGE 1-B



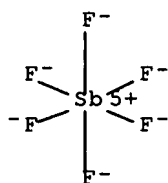


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



IT 470483-49-9P 470483-51-3P

RL: CAT (Catalyst use); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
 (photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)

RN 470483-49-9 HCAPLUS

CN Sulfonium, [1,4-phenylenebis[(1E)-2,1-ethenediyl[5-[bis(4-butylphenyl)amino]-2,1-phenylene]]]bis[dimethyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

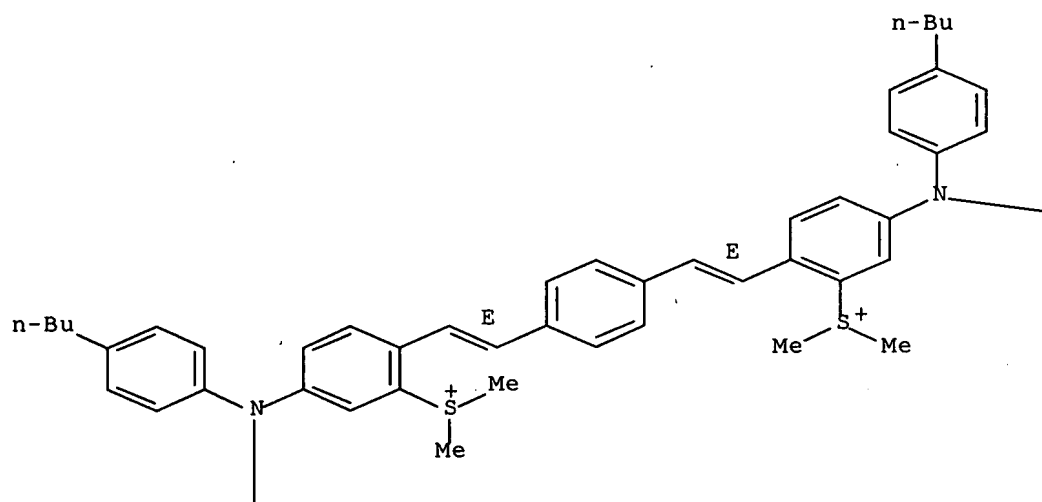
CM 1

CRN 470483-48-8

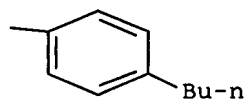
CMF C66 H78 N2 S2

Double bond geometry as shown.

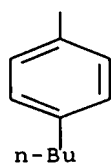
PAGE 1-A



PAGE 1-B



PAGE 2-A

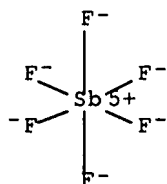


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



RN 470483-51-3 HCAPLUS

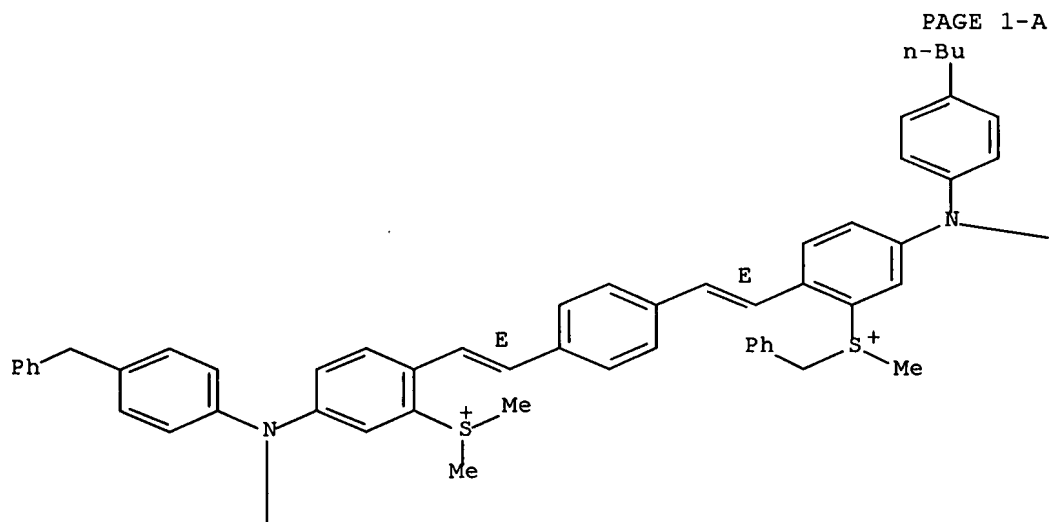
CN Sulfonium, [5-[bis(4-butylphenyl)amino]-2-[(1E)-2-[4-[(1E)-2-[4-[(4-butylphenyl)[4-(phenylmethyl)phenyl]amino]-2-(dimethylsulfonio)phenyl]ethenyl]phenyl]ethenyl]phenyl]methyl(phenylmethyl)-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

CM 1

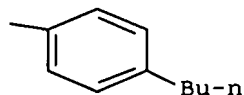
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CMF C75 H80 N2 S2

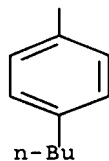
Double bond geometry as shown.



PAGE 1-B



PAGE 2-A

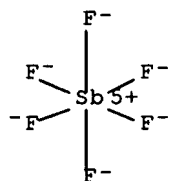


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



IT 470483-77-3P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP****(Preparation)**; RACT (Reactant or reagent)

(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)

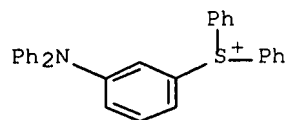
RN 470483-77-3 HCAPLUS

CN Sulfonium, [3-(diphenylamino)phenyl]diphenyl-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 470483-76-2

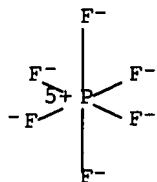
CMF C30 H24 N S



CM 2

CRN 16919-18-9

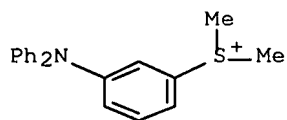
CMF F6 P
CCI CCS



IT **406724-70-7P**, [3-(N,N-Diphenyl)amino]phenyl dimethyl sulfonium hexafluorophosphate **406724-71-8P**, 3-(N,N-Diphenyl)amino]phenyl dimethyl sulfonium hexafluoroantimonate **470483-27-3P**
470483-55-7P 470483-82-0P 470483-87-5P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)
RN 406724-70-7 HCAPLUS
CN Sulfonium, [3-(diphenylamino)phenyl]dimethyl-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

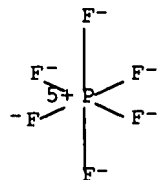
CM 1

CRN 406724-68-3
CMF C20 H20 N S



CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



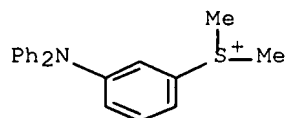
RN 406724-71-8 HCAPLUS

CN Sulfonium, [3-(diphenylamino)phenyl]dimethyl-, (OC-6-11)-
hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 406724-68-3

CMF C20 H20 N S

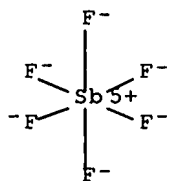


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



RN 470483-27-3 HCAPLUS

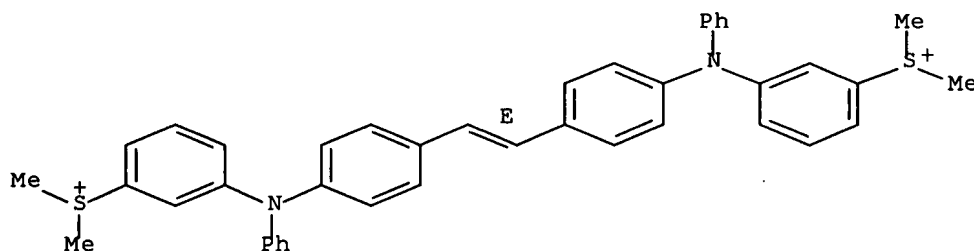
CN Sulfonium, [(1E)-1,2-ethenediylbis[4,1-phenylene(phenylimino)-3,1-phenylene]]bis[dimethyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI)
(CA INDEX NAME)

CM 1

CRN 470483-19-3

CMF C42 H40 N2 S2

Double bond geometry as shown.

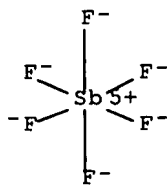


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



RN 470483-55-7 HCAPLUS

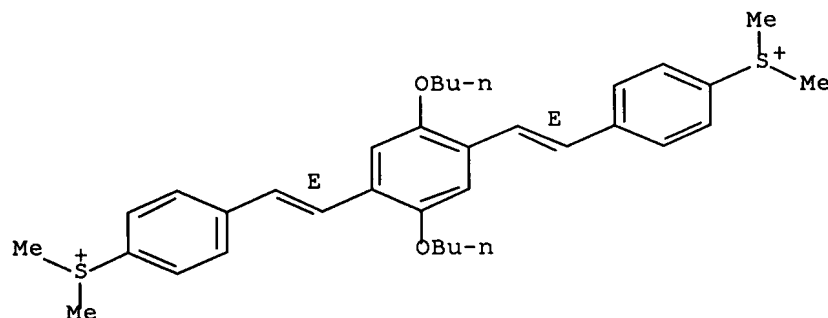
CN Sulfonium, [(2,5-dibutoxy-1,4-phenylene)bis[(1E)-2,1-ethenediyl-4,1-phenylene]]bis[dimethyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI)
(CA INDEX NAME)

CM 1

CRN 470483-53-5

CMF C34 H44 O2 S2

Double bond geometry as shown.

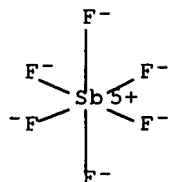


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



RN 470483-82-0 HCAPLUS

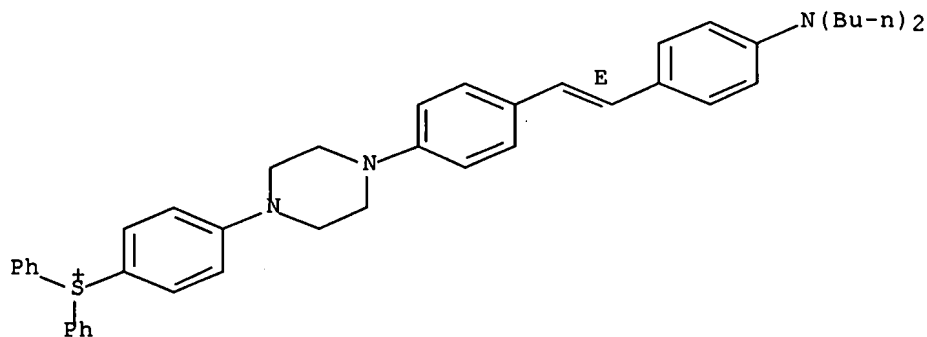
CN Sulfonium, [4-[4-[4-[(1E)-2-[4-(dibutylamino)phenyl]ethenyl]phenyl]-1-piperazinyl]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 470483-81-9

CMF C44 H50 N3 S

Double bond geometry as shown.

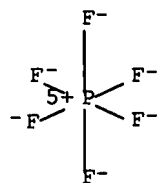


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 470483-87-5 HCAPLUS

CN Sulfonium, [4-[4-[4-[(1E)-2-[4-[(1E)-2-[4-(dibutylamino)phenyl]ethenyl]-2,5-dimethoxyphenyl]ethenyl]phenyl]-1-piperazinyl]phenyl]diphenyl-,

Serial No.:10/562,444

hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

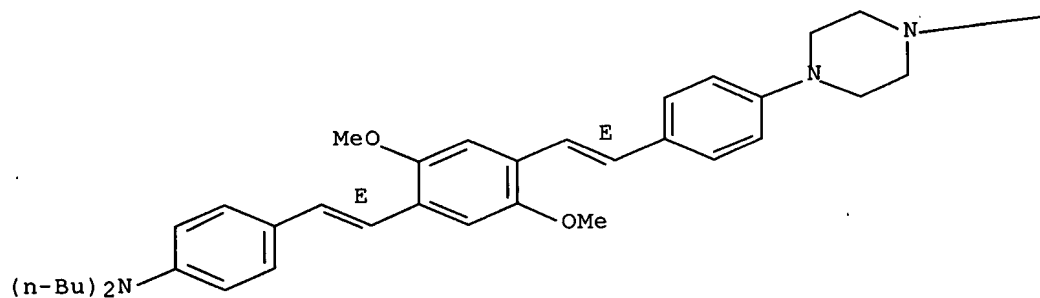
CM 1

CRN 470483-86-4

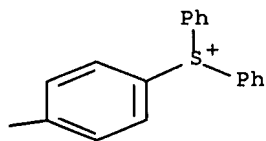
CMF C54 H60 N3 O2 S

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

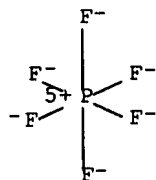


CM 2

CRN 16919-18-9

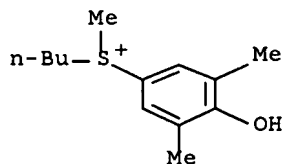
CMF F6 P

CCI CCS



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 14 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:625055 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:137012
 TITLE: Second-generation hydroxyphenylsulfonium salts: a new class of cationic photoinitiators
 AUTHOR(S): Auhn, Jinseo; Crivello, James V.
 CORPORATE SOURCE: New York State Center for Polymer Synthesis, Dept. of Chemistry, Rensselaer Polytechnic Inst., Troy, NY, 12180, USA
 SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2002), 43(2), 918-919
 CODEN: ACPPAY; ISSN: 0032-3934
 PUBLISHER: American Chemical Society, Division of Polymer Chemistry
 DOCUMENT TYPE: Journal; (computer optical disk)
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 138:137012
 ED Entered STN: 20 Aug 2002
 AB The reaction of 2,6-dimethylphenol with 1-(methylsulfonyl)dodecane, followed by treatment with potassium hexafluorophosphate, gave dodecyl(4-hydroxy-3,5-dimethylphenyl)methylsulfonium hexafluorophosphate; other alkyl(4-hydroxy-3,5-dimethylphenyl)methylsulfonium hexafluorophosphate derivs. were prepared similarly. These alkyl(4-hydroxy-3,5-dimethylphenyl)methylsulfonium hexafluorophosphate derivs. were studied as cationic polymerization catalysts for 4-vinyl-1-cyclohexene dioxide. Tetrahydro-1-(4-hydroxy-3,5-dimethylphenyl)thiophenium hexafluorophosphate and tetrahydro-1-(2-hydroxy-3,5-dimethylphenyl)thiophenium hexafluorophosphate were also studied.
 IT 492460-38-5P 492460-42-1P 492460-48-7P
 492460-52-3P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); **PREP** (Preparation); USES (Uses)
 (preparation of alkyl(4-hydroxy-3,5-dimethylphenyl)methylsulfonium hexafluorophosphate derivs. as cationic photoinitiators)
 RN 492460-38-5 HCAPLUS
 CN Sulfonium, butyl(4-hydroxy-3,5-dimethylphenyl)methyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)
 CM 1
 CRN 492460-37-4
 CMF C13 H21 O S

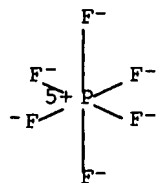


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



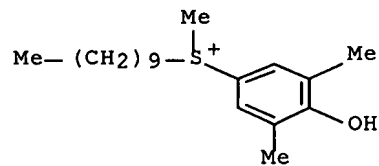
RN 492460-42-1 HCAPLUS

CN Sulfonium, decyl(4-hydroxy-3,5-dimethylphenyl)methyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-41-0

CMF C19 H33 O S

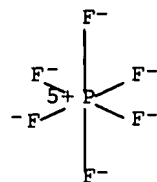


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

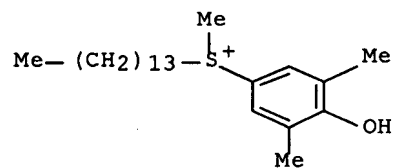


RN 492460-48-7 HCAPLUS

CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)methyltetradecyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

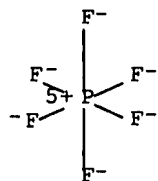
CM 1

CRN 492460-47-6
CMF C23 H41 O S



CM 2

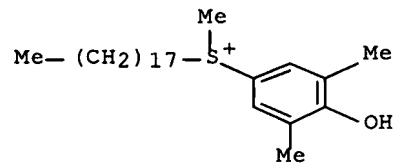
CRN 16919-18-9
CMF F6 P
CCI CCS



RN 492460-52-3 HCAPLUS
CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)methyloctadecyl-,
hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

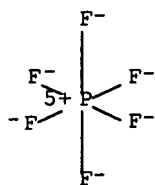
CM 1

CRN 492460-51-2
CMF C27 H49 O S



CM 2

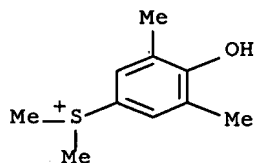
CRN 16919-18-9
CMF F6 P
CCI CCS



IT 73981-32-5P, (4-Hydroxy-3,5-dimethylphenyl)dimethylsulfonium
hexafluorophosphate 492460-40-9P 492460-44-3P
492460-46-5P 492460-50-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of alkyl(4-hydroxy-3,5-dimethylphenyl)methylsulfonium
hexafluorophosphate derivs. as cationic photoinitiators)
RN 73981-32-5 HCAPLUS
CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)dimethyl-, hexafluorophosphate(1-
) (9CI) (CA INDEX NAME)

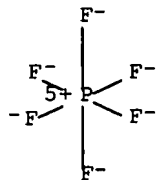
CM 1

CRN 57836-01-8
CMF C10 H15 O S



CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS

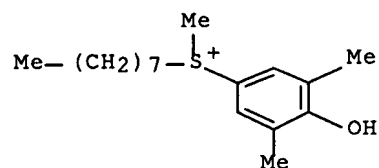


RN 492460-40-9 HCAPLUS
CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)methyloctyl-,
hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-39-6

CMF C17 H29 O S

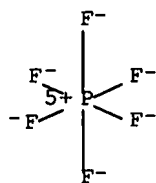


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



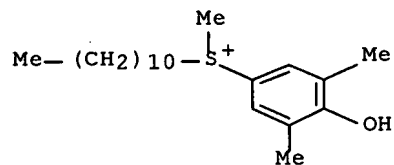
RN 492460-44-3 HCAPLUS

CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)methylundecyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-43-2

CMF C20 H35 O S

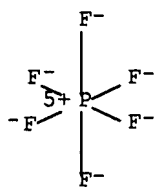


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



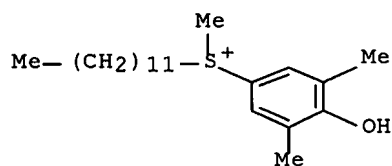
RN 492460-46-5 HCAPLUS

CN Sulfonium, dodecyl(4-hydroxy-3,5-dimethylphenyl)methyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-45-4

CMF C21 H37 O S

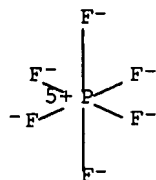


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



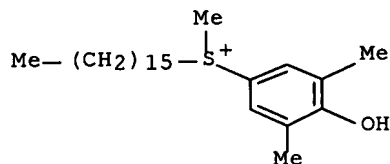
RN 492460-50-1 HCAPLUS

CN Sulfonium, hexadecyl(4-hydroxy-3,5-dimethylphenyl)methyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 492460-49-8

CMF C25 H45 O S

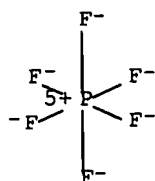


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 15 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:171457 HCAPLUS Full-text
 DOCUMENT NUMBER: 136:239115
 TITLE: Photopolymerizable composition suitable for
 laser-direct-imaging lithographic plate precursor
 INVENTOR(S): Kunita, Kazuto
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 116 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002069110	A	20020308	JP 2000-265493	20000901 <--
PRIORITY APPLN. INFO.:			JP 2000-265493	20000901 <--

ED Entered STN: 08 Mar 2002

AB The title composition contains a photopolymn. initiator and photopolymerizable compds. having a double bond, wherein the photopolymn. initiator has structure $\text{CH}_2=\text{C}(\text{COX}_2)(\text{CRaRbX}_1)$ ($\text{X}_1\text{-2}$ = halo, hetero atom; Ra-b = H, halo, cyano, organic residual group). The composition, which contains the photopolymn. initiator, shows the improvement on the sensitivity and the storageability.

IT **403496-47-9P**RL: CAT (Catalyst use); SPN (Synthetic preparation); **PREP**

(Preparation); USES (Uses)

(photopolymn. initiator in photopolymerizable composition)

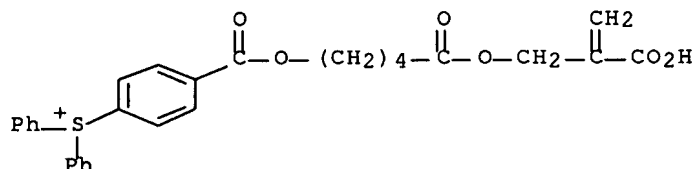
RN 403496-47-9 HCAPLUS

CN Sulfonium, [4-[[[5-[(2-carboxy-2-propenyl)oxy]-5-oxopentyl]oxy]carbonyl]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 403496-46-8

CMF C28 H27 O6 S

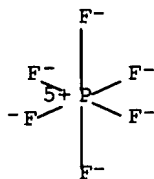


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 16 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:106401 HCAPLUS Full-text

DOCUMENT NUMBER: 136:279740

TITLE: Efficient Photoacids Based upon Triarylamine
Dialkylsulfonium SaltsAUTHOR(S): Zhou, Wenhui; Kuebler, Stephen M.; Carrig, Dave;
Perry, Joseph W.; Marder, Seth R.CORPORATE SOURCE: Department of Chemistry, University of Arizona,
Tucson, AZ, 85721, USASOURCE: Journal of the American Chemical Society (2002
) , 124(9), 1897-1901

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 10 Feb 2002

AB New triarylamine dialkylsulfonium salts that are photosensitive in the near-UV have been prepared. The quantum yields of photoacid generation were found to be .apprx.0.5 and are independent of the counterion. On the other hand, the efficiencies of the sulfonium salts toward the photopolymerization of cyclohexene oxide depend on the counterion and the sulfonium substituents. Photopolymerization kinetic studies demonstrate that these triphenylamine sulfonium salts are highly efficient cationic photoinitiators.

IT **406724-70-7P**, [3-(N,N-Diphenyl)amino]phenyl DimethylSulfonium Hexafluorophosphate **406724-71-8P**, [3-(N,N-Diphenyl)amino]phenyl DimethylSulfonium Hexafluoroantimonate
 RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);
PREP (Preparation); **USES (Uses)**
 (preparation and efficiencies of triarylamine dialkylsulfonium salts for photopolymerization of cyclohexene oxide)

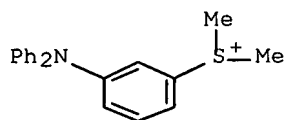
RN 406724-70-7 HCAPLUS

CN Sulfonium, [3-(diphenylamino)phenyl]dimethyl-, hexafluorophosphate(1-)
 (9CI) (CA INDEX NAME)

CM 1

CRN 406724-68-3

CMF C20 H20 N S

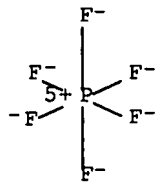


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



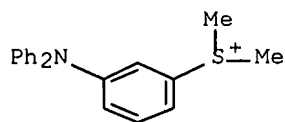
RN 406724-71-8 HCAPLUS

CN Sulfonium, [3-(diphenylamino)phenyl]dimethyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 406724-68-3

CMF C20 H20 N S

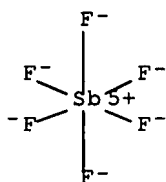


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 17 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:186599 HCAPLUS Full-text

DOCUMENT NUMBER: 134:367678

TITLE: Curing behavior of epoxy resin initiated by S-alkylsulfonium salts of aromatic sulfides as thermal latent cationic initiators

AUTHOR(S): Shimomura, Osamu; Tomita, Ikuyoshi; Endo, Takeshi

CORPORATE SOURCE: Chemical Resources Laboratory, Tokyo Institute of Technology, Yokohama, 226-8503, Japan

SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (2001), 39(6), 868-871

CODEN: JPACEC; ISSN: 0887-624X

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 18 Mar 2001

AB The curing behavior of bisphenol-A-type epoxide oligomers (Ep) was evaluated by differential scanning calorimetry in the presence of S-alkylsulfonium salts of dibenzothiophene, phenoxathiin, thianthrene, thioanisole, and tetrahydrothiophene as thermal latent initiators. These initiators dissolved homogeneously in Ep, except for 2,8-dimethoxy-5-methyldibenzothiophenium tetrafluoroborate, and the curing reaction of the resulting mixts. occurred on heating, except for S-methyltetrahydrothiophenium tetrafluoroborate. The initiation activity of these salts was controlled by the character of the substituents on the benzene ring, the leaving sulfide group, and the S-alkyl group. Presumably, the electron d. on the sulfide moieties and the stability of the carbocation released from the sulfonium salts affected the initiating temperature. A good correlation was obtained between the initiating temperature and the electron d. of the sulfur atom of the corresponding

sulfides, estimated from ab initio MO calcns. in which the initiating temperature became higher as the electron d. of the sulfur atom increased.

IT 33613-52-4P 77252-61-0P 199342-34-2P

RL: CAT (Catalyst use); SPN (Synthetic preparation); **PREP**
(Preparation); USES (Uses)

(curing behavior of epoxy resin initiated by S-alkylsulfonium salts of aromatic sulfides as thermal latent cationic initiators)

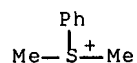
RN 33613-52-4 HCAPLUS

CN Sulfonium, dimethylphenyl-, tetrafluoroborate(1-) (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 45694-57-3

CMF C8 H11 S

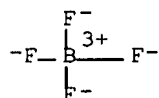


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



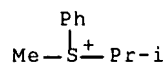
RN 77252-61-0 HCAPLUS

CN Sulfonium, methyl(1-methylethyl)phenyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 45878-10-2

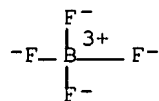
CMF C10 H15 S



CM 2

CRN 14874-70-5

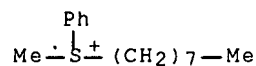
CMF B F4
CCI CCS



RN 199342-34-2 HCAPLUS
CN Sulfonium, methyloctylphenyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

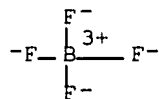
CM 1

CRN 199342-33-1
CMF C15 H25 S



CM 2

CRN 14874-70-5
CMF B F4
CCI CCS



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 18 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:519220 HCAPLUS Full-text
DOCUMENT NUMBER: 133:266964
TITLE: Cationic Unsymmetrical 1,4-Diazabutadiene Complexes of Platinum(II)
AUTHOR(S): Albietz, Paul J., Jr.; Yang, Kaiyuan; Lachicotte, Rene J.; Eisenberg, Richard
CORPORATE SOURCE: Department of Chemistry, University of Rochester, Rochester, NY, 14627, USA
SOURCE: Organometallics (2000), 19(18), 3543-3555
CODEN: ORGND7; ISSN: 0276-7333
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 01 Aug 2000

AB The synthesis of the silyl-protected 1,4-diazabutadiene ligands glyoxalbis(2-(α -triisopropylsiloxyethyl)-6-methylphenyl)diimine (TIPS-6-MPD) and glyoxalbis(2-(α -triisopropylsiloxyethyl)-4-methylphenyl)diimine (TIPS-4-MPD) and their subsequent reactions with trans-Pt(SMe₂)₂(Me)Cl to generate the corresponding complexes (TIPS-6-MPD)Pt(Me)Cl (1a) and (TIPS-4-MPD)Pt(Me)Cl (1b) are described. Cationic complexes [(N,N-chelate)Pt(Me)(L)]BF₄ (L = solvent/olefin and N,N-chelate = TIPS-6-MPD and TIPS-4-MPD) were generated by the reaction of chloro Me complexes 1a and 1b with AgBF₄ in the presence of L. Various exchange reactions were examined for [(TIPS-6-MPD)Pt(Me)(NCCH₃)]BF₄ (2a), in which the coordinated solvent reversibly exchanges with acrylonitrile, ethylene, fumaronitrile, cis-2-pentenitrile, benzonitrile, di-Me sulfide, and CO to generate the corresponding cationic complexes 3-9, resp. Kinetics expts. under pseudo-first-order conditions using 10-, 20-, and 30-fold excesses of benzonitrile demonstrate that 2a undergoes ligand exchange via an associative pathway with a bimol. rate constant k_2 of $(3.2 \pm 2.0) \times 10^{-4} \text{ M}^{-1} \text{ s}^{-1}$. Complex 2a initiates the polymerization of various electron-rich monomers. A detailed anal. of the reaction demonstrates that the initiation is cationic in nature. The mol. structure of TIPS-6-MPD was determined by a single-crystal x-ray diffraction anal. The free ligand adopts an s-trans conformation with a planar N:C-C:N backbone.

IT 297144-22-0P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP****(Preparation)**; RACT (Reactant or reagent)

(preparation and equilibrium coordinative substitution with acetonitrile)

RN 297144-22-0 HCAPLUS

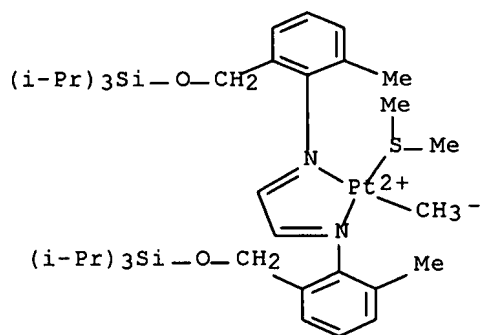
CN Platinum(1+), [N,N'-1,2-ethanediylidenebis[2-methyl-6-[[[tris(1-methylethyl)silyl]oxy]methyl]benzenamine- κ N]]methyl[thiobis[methane]]-, (SP-4-2)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 297144-21-9

CMF C39 H69 N2 O2 Pt S Si2

CCI CCS

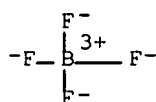


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 19 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:257696 HCAPLUS Full-text

DOCUMENT NUMBER: 133:17872

TITLE: Long-wavelength-absorbing dialkylphenacylsulfonium salt photoinitiators: synthesis and photoinduced cationic polymerization

AUTHOR(S): Crivello, James V.; Kong, Shengqian

CORPORATE SOURCE: New York State Center for Polymer Synthesis, Department of Chemistry, Rensselaer Polytechnic Institute, Troy, NY, 12180, USA

SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (2000), 38(9), 1433-1442

CODEN: JPACEC; ISSN: 0887-624X

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 21 Apr 2000

AB A series of sulfonium salt photoinitiators with the general structure $\text{Ar}'\text{S}^+\text{CH}_3(\text{C}_{12}\text{H}_{25})\text{SbF}_6^-$, where Ar' is phenacyl (I), 2-indanonyl (II), 4-methoxyphenacyl (III), 2-naphthoylemethyl (IV), 1-anthroylmethyl (V), or 1-pyrenoylmethyl (VI), were prepared with a novel, simple one-pot process that involves the reaction of an α -bromoalkylarylketone ($\text{Ar}'\text{Br}$) with the dialkylsulfide ($\text{CH}_3\text{SC}_{12}\text{H}_{25}$) in the presence of sodium hexafluoroantimonate in 2-butanone at room temperature. The photoreactivity of photoinitiators II-VI were evaluated and compared to the unsubstituted analog, I, in the polymerization of a variety of epoxide monomers. Real-time IR spectroscopy and differential scanning photocalorimetry studies revealed that the indanonyl initiator II is more active than I. However, sulfonium salts IV-VI, which contain polycyclic aromatic structures, are much less effective as cationic photoinitiators. Interestingly, photoinitiator III is either more or less reactive compared to I, depending on the monomer used. Our work also showed that the efficiency of the unsubstituted phenacylsulfonium salt I can be significantly enhanced through the use of photosensitizers. Mechanistic aspects of the photopolymerization studies are discussed.

IT 272450-06-3P

RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);

PREP (Preparation); USES (Uses)

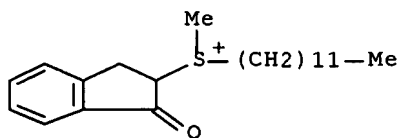
(long-wavelength-absorbing dialkylphenacylsulfonium salt photoinitiator for cationic polymerization)

RN 272450-06-3 HCAPLUS

CN Sulfonium, (2,3-dihydro-1-oxo-1H-inden-2-yl)dodecylmethyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

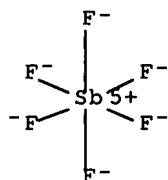
CM 1

CRN 272450-05-2
CMF C22 H35 O S



CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 20 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:253324 HCAPLUS Full-text

DOCUMENT NUMBER: 133:58908

TITLE: Cationic palladium complexes with ketophosphine and phosphino enolate ligands and their reactivity towards C-C coupling reactions. Crystal structures of [cyclic][PdMe(Ph₂PCH₂C(O)Ph)(PCy₃)](PF₆) and [cyclic][Pd{Ph₂PCH···C(·c ntdot·O)Ph}(SMe₂)₂](PF₆)

AUTHOR(S): Andrieu, J.; Braunstein, P.; Naud, F.; Adams, R. D.

CORPORATE SOURCE: Laboratoire de Chimie de Coordination, UMR CNRS 7513, Universite Louis Pasteur, Strasbourg, F-67070, Fr.

SOURCE: Journal of Organometallic Chemistry (2000), 601(1), 43-50

CODEN: JORCAI; ISSN: 0022-328X

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:58908

ED Entered STN: 20 Apr 2000

AB Two types of monocationic Pd(II) complexes are reported, which contain either the functional P,O phosphine ligands Ph₂PCH₂C(O)Ph or Ph₂PCH₂C(O)NPh₂ or an anionic chelating phosphino enolate. The 1st set of complexes includes [PdMe{Ph₂PCH₂C(O)Ph}(PPh₃)](PF₆) (1), [PdMe{Ph₂PCH₂C(O)Ph}(PCy₃)](PF₆) (2), [PdMe{Ph₂PCH₂C(O)NPh₂}(PPh₃)](PF₆) (3), and the 2nd

[Pd{Ph₂PCH:C(O)Ph}(SMe₂)₂](PF₆) (5), which was obtained by an interesting ligand redistribution reaction between cis-[Pd{Ph₂PCH:C(O)Ph}₂] and [Pd(SMe₂)₄](PF₆)₂. Compds. 1 and 5 display catalytic activity for ethylene dimerization. A preliminary study on ethylene/CO copolymn. with complexes 1-3 identified compound 1 as a catalyst precursor. This led to the in situ preparation of an active species for ethylene/CO copolymn., starting from a Pd(0) precursor and appropriate ligands. The structures of complexes 2 and 5 were determined by x-ray diffraction.

IT 277753-62-5P

RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);

PREP (Preparation); USES (Uses)

(crystal structure; preparation and catalytic activity toward ethylene dimerization)

RN 277753-62-5 HCAPLUS

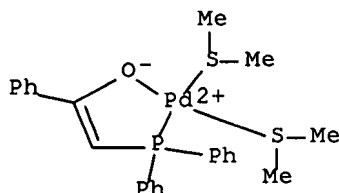
CN Palladium(1+), [α -(diphenylphosphino- κ P)methylene]benzenemethanolato- κ O]bis[thiobis[methane]]-, (SP-4-3)-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 277753-61-4

CMF C24 H28 O P Pd S2

CCI CCS

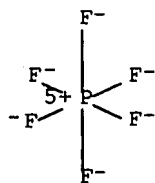


CM 2

CRN 16919-18-9

CMF F6 P

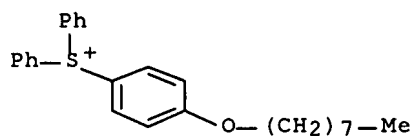
CCI CCS



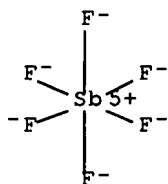
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 21 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:558952 HCAPLUS Full-text

DOCUMENT NUMBER: 132:194701
 TITLE: Second-generation phenacylsulfonium salts - a new class of cationic photoinitiators
 AUTHOR(S): Kong, Shengqian; Crivello, James V.
 CORPORATE SOURCE: New York State Center for Polymer Synthesis Department of Chemistry, Rensselaer Polytechnic Institute, Troy, NY, 12180, USA
 SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1999), 40(2), 569-570
 CODEN: ACPPAY; ISSN: 0032-3934
 PUBLISHER: American Chemical Society, Division of Polymer Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 02 Sep 1999
 AB A novel class of highly soluble dialkylphenacylsulfonium salts with general structures, $\text{PhCOCHS}(\text{CH})(\text{CH})\text{MtX}$, where MtX is a non-nucleophilic anion such as SbF_6^- , AsF_6^- , PF_6^- and $\text{B}(\text{PhF})_4^-$, has been prepared by a simple one-pot reaction. For example, mixing equal molar amts. of phenacyl bromide (PhCOCH_2Br), a dialkyl sulfide ($\text{CH}_2\text{S-CH}_2$) and an alkali salt (YMtX) in acetone and refluxing the mixture for 15 to 30 min gives the desired product in good to excellent yields. These salts possess good thermal stability and are excellent initiators for photo- and thermally induced cationic polymns.
 IT **143577-53-1P**
 RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**; USES (Uses)
 (second-generation phenacylsulfonium salts - a new class of cationic photoinitiators)
 RN 143577-53-1 HCAPLUS
 CN Sulfonium, [4-(octyloxy)phenyl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-)
) (9CI) (CA INDEX NAME)
 CM 1
 CRN 127331-44-6
 CMF C26 H31 O S



CM 2
 CRN 17111-95-4
 CMF F6 Sb
 CCI CCS

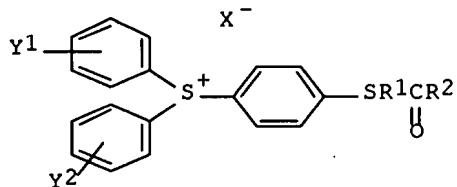


REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 22 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:375526 HCAPLUS Full-text
 DOCUMENT NUMBER: 131:19433
 TITLE: Aromatic sulfonium compounds as photo-induced acid generators for photopolymerization
 INVENTOR(S): Ohkawa, Kazuo; Tachikawa, Hiroyuki; Chikaoka, Satoyuki
 PATENT ASSIGNEE(S): Asahi Denka Kogyo Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 50 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9928295	A1	19990610	WO 1998-JP5472	19981204 <--
W: US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 2000186071	A	20000704	JP 1998-291898	19981014 <--
EP 1036789	A1	20000920	EP 1998-957164	19981204 <--
EP 1036789	B1	20030305		
R: BE, CH, DE, FR, GB, LI, NL, SE				
US 6368769	B1	20020409	US 2000-555632	20000706 <--
PRIORITY APPLN. INFO.:			JP 1997-334529	A 19971204 <--
			JP 1998-291898	A 19981014 <--
			WO 1998-JP5472	W 19981204 <--

OTHER SOURCE(S): MARPAT 131:19433
 ED Entered STN: 17 Jun 1999
 GI



I

AB Aromatic sulfonium compds. of general formula I as photo-induced acid generators can provide satisfactory curing depth, and is capable of providing stereolithog. resin compns. with high accuracy curing, wherein R1 is substituted p-phenylene, R2 is oxygen- or halogen-containing hydrocarbon, Y1 and Y1 are H, halogen or hydrocarbon, X is anion. Thus, 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexanecarboxylate 75, 1,4-butanediol diglycidyl ether 25, and 4-(2-Chloro-4-benzoylphenylthio)phenyldiphenylsulfonium hexafluoroantimonate 2 parts formed a photopolymn. system to give a product with flexure strength 600 kg/cm², izod impact 5.1 kg·cm/cm², and forming accuracy 0.011 mm.

IT **225663-98-9P**

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**

(Preparation); USES (Uses)

(aromatic sulfonium compds. as photo-induced acid generators for photopolymn.)

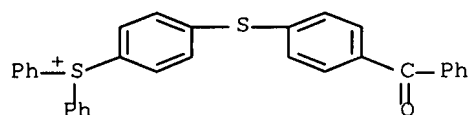
RN 225663-98-9 HCAPLUS

CN Sulfonium, [4-[(4-benzoylphenyl)thio]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 197796-25-1

CMF C31 H23 O S2

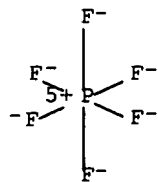


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



IT **197796-26-2P 225656-84-8P**

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**

(Preparation); USES (Uses)

(cationic polymerization catalyst; aromatic sulfonium compds. as photo-induced acid generators for photopolymn.)

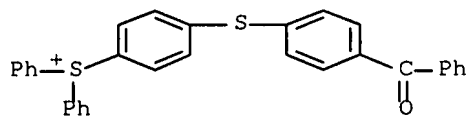
RN 197796-26-2 HCAPLUS

CN Sulfonium, [4-[(4-benzoylphenyl)thio]phenyl]diphenyl-,
(OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 197796-25-1

CMF C31 H23 O S2

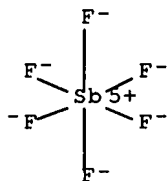


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



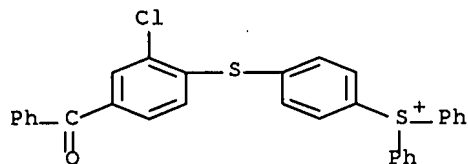
RN 225656-84-8 HCAPLUS

CN Sulfonium, [4-[(4-benzoyl-2-chlorophenyl)thio]phenyl]diphenyl-,
(OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 225656-83-7

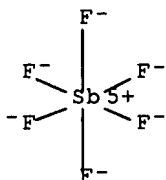
CMF C31 H22 Cl O S2



CM 2

CRN 17111-95-4

CMF F6 Sb
CCI CCS



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 23 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:596261 HCAPLUS Full-text

DOCUMENT NUMBER: 129:189717

TITLE: Cationic polymerization of glycidyl phenyl ether initiated by various arylsulfonium salts as new thermal latent cationic initiators

AUTHOR(S): Shimomura, Osamu; Tomita, Ikuyoshi; Endo, Takeshi

CORPORATE SOURCE: Res. Lab. Resources Utilization, Tokyo Inst. Technol., Yokohama, 226, Japan

SOURCE: Macromolecular Rapid Communications (1998), 19(9), 493-497

CODEN: MRCE3; ISSN: 1022-1336

PUBLISHER: Huethig & Wepf Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 21 Sep 1998

AB The cationic initiation activity of derivs. of S-methylsulfonium salts was evaluated in the cationic polymerization of glycidyl Ph ether (I). These initiators are soluble in I and capable of initiating the cationic polymerization of I on heating, except for methyltetrahydrothiophenium tetrafluoroborate (r.t. -160°). Among them, methyldiphenylsulfonium tetrafluoroborate shows moderate thermal latency, that is the polymerization of I occurs efficiently at 160 but not <80°.

IT 40447-58-3P, Isopropyldiphenylsulfonium tetrafluoroborate

96989-33-2P, Octyldiphenylsulfonium tetrafluoroborate

RL: CAT (Catalyst use); SPN (Synthetic preparation); **PREP**

(**Preparation**); USES (Uses)

(aryl sulfonium tetrafluoroborate thermal latent initiator effects on cationic polymerization of glycidyl Ph ether)

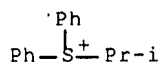
RN 40447-58-3 HCAPLUS

CN Sulfonium, (1-methylethyl)diphenyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 46487-34-7

CMF C15 H17 S

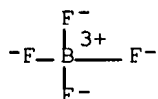


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



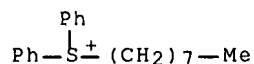
RN 96989-33-2 HCAPLUS

CN Sulfonium, octyldiphenyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1.

CRN 82054-24-8

CMF C20 H27 S

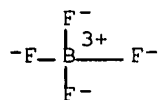


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



L33 ANSWER 24 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:498640 HCAPLUS Full-text

DOCUMENT NUMBER: 129:161963

TITLE: Thioxanthonessulfodioxide sulfonium salts,
photopolymerization initiators using them, energy
beam-curable compositions containing them, and their
cured products

INVENTOR(S): Taniguchi, Nobuo; Yokoshima, Minoru

Serial No.:10/562,444

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10204083	A	19980804	JP 1997-19644	19970120 <--
PRIORITY APPLN. INFO.:			JP 1997-19644	19970120 <--

OTHER SOURCE(S): MARPAT 129:161963

ED Entered STN: 11 Aug 1998

AB The sulfonium salts have thioxanthonessulfodioxide structures in their mols. The photopolymn. initiators contains the above compds. as active principles. Energy beam-curable compns. containing the initiators and their cured products are also claimed. The compns. are useful for coatings, inks, resists, adhesives, moldings, sealants, etc. Thus, 3,4-epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate 85, a photopolymn. initiator (obtained from 2,4-diethylthioxanthone-10,10- sulfodioxide and 4,4'-difluorodiphenyl sulfoxide) 3, TiO2 98, Vylon 220 10, and L 7604 (surfactant) 0.4 part were blended, applied on an Al plate, and cured with UV to give a film showing good hardness, curability, and gloss.

IT 210295-92-4P

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**

(Preparation); USES (Uses)

(thioxanthonessulfodioxide sulfonium salts as photopolymn. initiators for energy beam-curable compns.)

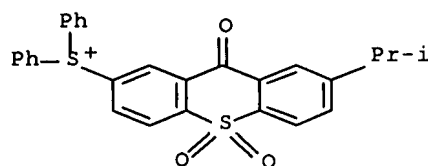
RN 210295-92-4 HCAPLUS

CN Sulfonium, [7-(1-methylethyl)-10,10-dioxido-9-oxo-9H-thioxanthen-2-yl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 210295-91-3

CMF C28 H23 O3 S2

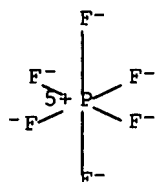


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 25 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:430757 HCAPLUS Full-text

DOCUMENT NUMBER: 129:123840

TITLE: Thioxanthon sulfoxide sulfonium salts as photopolymerization initiators, energy beam-curable compositions containing them, and their cured products

INVENTOR(S): Taniguchi, Nobuo; Yokojima, Minoru

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10182634	A	19980707	JP 1996-355878	19961225 <--
PRIORITY APPLN. INFO.:			JP 1996-355878	19961225 <--

OTHER SOURCE(S): MARPAT 129:123840

ED Entered STN: 13 Jul 1998

AB The sulfonium salts as polymerization initiators have thioxanthon sulfoxide structures in their mols. The curable compns. contain cationically polymerizable substances and the polymerization initiators. The cured products from the above compns. are also claimed. Thus, a composition containing a sulfonium salt (obtained from 2,4-diethylthioxanthone, 4,4'-difluorodiphenyl sulfoxide, and NaSbF₆) 3, 3,4-epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate 85, TiO₂ 98, Vylon 220 10, and L 7604 (surfactant) 0.4 part was kneaded, applied on an Al plate, and cured by UV radiation to give a cured glossy coating with good solvent resistance.

IT **210295-55-9P**RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP****(Preparation); USES (Uses)**

(thioxanthon sulfoxide sulfonium salts as photopolymn. initiators for energy beam-curable solvent-resistant epoxy coatings)

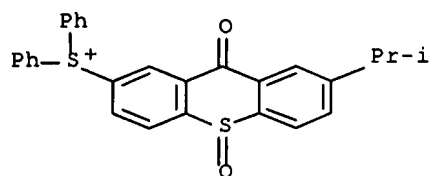
RN 210295-55-9 HCAPLUS

CN Sulfonium, [7-(1-methylethyl)-10-oxido-9-oxo-9H-thioxanthen-2-yl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 210295-54-8

CMF C28 H23 O2 S2

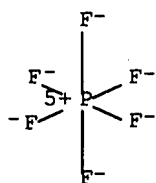


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 26 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1998:430756 HCAPLUS Full-text
 DOCUMENT NUMBER: 129:123839
 TITLE: Thioxanthonessulfodioxide sulfonium salts as
 photopolymerization initiators, energy beam-curable
 compositions containing them, and their cured products
 INVENTOR(S): Tanikuchi, Nobuo; Yokoshima, Minoru
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10182633	A	19980707	JP 1996-355877	19961225 <--
PRIORITY APPLN. INFO.:			JP 1996-355877	19961225 <--
OTHER SOURCE(S):	MARPAT 129:123839			

ED Entered STN: 13 Jul 1998

AB The sulfonium salts as polymerization initiators have thioxanthonessulfodioxide structures in their mols. The curable compns. contain cationically polymerizable substances and the polymerization initiators. The cured products from the above compns. are also claimed. Thus, a composition containing a sulfonium salt (obtained from 2,4-diethylthioxanthone-10,10-sulfodioxide, 4,4'-difluorodiphenyl sulfoxide, and NaSbF₆) 3, 3,4-epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate 85, TiO₂ 98, Vylon 220 10, and L 7604 (surfactant) 0.4 part was kneaded, applied on an Al plate, and

cured by UV radiation to give a cured glossy coating with good solvent resistance.

IT 210295-92-4P

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**
(Preparation); USES (Uses)

(thioxanthonessulfodioxide sulfonium salts as photopolymerization initiators for energy beam-curable solvent-resistant epoxy coatings)

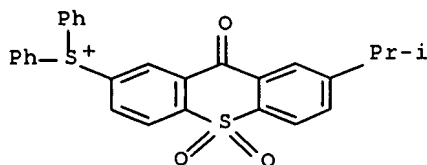
RN 210295-92-4 HCAPLUS

CN Sulfonium, [7-(1-methylethyl)-10,10-dioxido-9-oxo-9H-thioxanthen-2-yl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 210295-91-3

CMF C28 H23 O3 S2

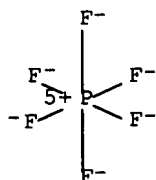


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 27 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:281146 HCAPLUS Full-text

DOCUMENT NUMBER: 126:264473

TITLE: Sulfonium salt compounds, polymerization initiators, curable compositions and curing method

INVENTOR(S): Takahashi, Eiji

PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan; Takahashi, Eiji

SOURCE: PCT Int. Appl., 37 pp.

CODEN: PIXXD2

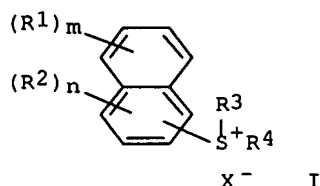
DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9708141	A1	19970306	WO 1996-JP2333	19960821 <--
W: US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 09118663	A	19970506	JP 1996-214251	19960725 <--
EP 846681	A1	19980610	EP 1996-927862	19960821 <--
EP 846681	B1	20031203		
R: DE, FR, GB				
US 6093753	A	20000725	US 1998-11854	19980219 <--
PRIORITY APPLN. INFO.:			JP 1995-236140	A 19950822 <--
			WO 1996-JP2333	W 19960821 <--
OTHER SOURCE(S): MARPAT 126:264473				
ED Entered STN: 02 May 1997				
GI				



AB Curable compns. containing compds. I (R1, R2 = alkyl, OH, alkoxy, alkylcarbonyl, aromatic carbonyl, aromatic thio, halo; R3 = alkyl; R4 = optionally substituted alkyl, alkenyl, cycloalkyl; X = non-nucleophilic anionic residue; m, n = 0-3), cationically polymerizable compds., and optionally sensitizers, is usable appropriately in coatings, adhesives, photoresists, etc. Thus, a composition containing ERL 4221 (alicyclic epoxy resin) and 2-naphthyl 2-indanyl methylsulfonium hexafluorophosphate showed good storage stability and curability.

IT **188731-58-0P 188731-63-7P 188731-94-4P**
188732-04-9P

RL: CAT (Catalyst use); SPN (Synthetic preparation); **PREP**
(Preparation); USES (Uses)

(preparation of sulfonium salt compds. as polymerization initiators and curing catalysts for epoxy resin compns.)

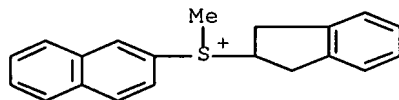
RN 188731-58-0 HCAPLUS

CN Sulfonium, (2,3-dihydro-1H-inden-2-yl)methyl-2-naphthalenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 188731-57-9

CMF C20 H19 S

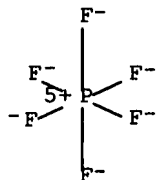


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



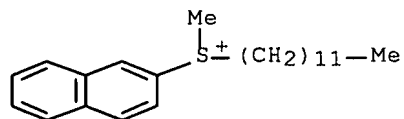
RN 188731-63-7 HCAPLUS

CN Sulfonium, dodecylmethyl-2-naphthalenyl-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 188731-62-6

CMF C23 H35 S

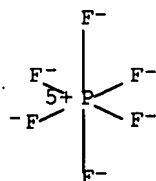


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 188731-94-4 HCAPLUS

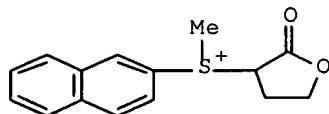
CN Sulfonium, methyl-2-naphthalenyl(tetrahydro-2-oxo-3-furanyl)-,

hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 188731-93-3

CMF C15 H15 O2 S

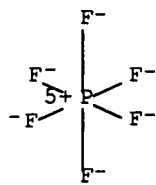


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



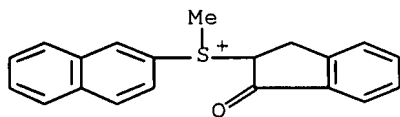
RN 188732-04-9 HCAPLUS

CN Sulfonium, (2,3-dihydro-1-oxo-1H-inden-2-yl)methyl-2-naphthalenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 188732-03-8

CMF C20 H17 O S

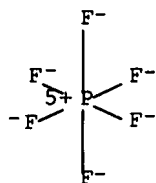


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 28 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:204639 HCAPLUS Full-text
 DOCUMENT NUMBER: 126:186932
 TITLE: Energy ray-curable compositions and their cured products with excellent dimensional precision
 INVENTOR(S): Abe, Tetsuya; Yoshioka, Ritsuko; Yokoshima, Minoru
 PATENT ASSIGNEE(S): Nippon Kayaku Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09012615	A	19970114	JP 1995-185087	19950629 <--
PRIORITY APPLN. INFO.:			JP 1995-185087	19950629 <--

OTHER SOURCE(S): MARPAT 126:186932

ED Entered STN: 28 Mar 1997

AB The compns., suited for optical molding, contain ethylenically unsatd. compds., cationically-polymerizable compds., and sulfonium photopolymn. initiators containing thioxanthone structure. Cured products of above compns. are also claimed. Thus, 38.4 parts 2,4-di-Et thioxanthone was reacted with 23.8 parts 4,4'-difluorodiphenyl sulfoxide at 25° and further reacted with 619.9 parts NaSbF₆ aqueous solution (solid content 37.1 parts) to give a precipitate, 3 parts of which was blended with dipentaerythritol hexaacrylate 15, 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexane carboxylate 55, and bisphenol A divinyl ether 30 parts to give a composition Then, the composition was injected in a mold and photopolymd. to give a cone-shape cured product showing excellent mech. strength and dimensional precision.

IT **181144-51-4P**

RL: CAT (Catalyst use); IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
 (sulfonium photopolymn. initiators containing thioxanthone structure for optical molding compns.)

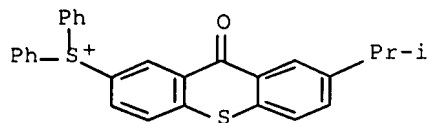
RN 181144-51-4 HCAPLUS

CN Sulfonium, [7-(1-methylethyl)-9-oxo-9H-thioxanthen-2-yl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 181144-50-3

CMF C28 H23 O S2

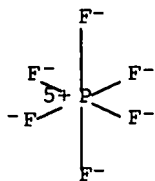


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 29 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:195189 HCAPLUS Full-text
 DOCUMENT NUMBER: 126:187446
 TITLE: Energy beam-curable compositions for odorless cured products
 INVENTOR(S): Abe, Tetsuya; Yoshioka, Ritsuko; Yokoshima, Minoru
 PATENT ASSIGNEE(S): Nippon Kayaku Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09012614	A	19970114	JP 1995-185086	19950629 <--
PRIORITY APPLN. INFO.:			JP 1995-185086	19950629 <--
OTHER SOURCE(S): MARPAT 126:187446				

ED Entered STN: 24 Mar 1997

AB The compns., useful for printing inks, coatings, and photoresists, contain ethylenically unsatd. compds., and thioxanthone sulfonyl compds. as photopolymn. initiators. Thus, 38.4 parts 2,4-diethylthioxanthone were reacted with 23.8 parts 4,4'-difluorodiphenyl sulfoxide at 25° and further reacted with 619.9 parts NaSbF₆ aqueous solution (solid content 37.1 parts) to give a compound, 3 parts of which were blended with Kayarad R 114 20, trimethylolpropane triacrylate 10, Kayarad R 551 50, and polyethylene glycol diacrylate 20 parts to give a composition, which was applied on paper and cured by UV to give coatings with no odor and excellent luster.

IT 181144-51-4P

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**
(Preparation); USES (Uses)

(thioxanthone sulfonium compds. as photoinitiators for energy
beam-curable compns. for odorless cured products)

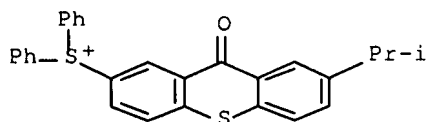
RN 181144-51-4 HCAPLUS

CN Sulfonium, [7-(1-methylethyl)-9-oxo-9H-thioxanthen-2-yl]diphenyl-,
hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 181144-50-3

CMF C28 H23 O S2

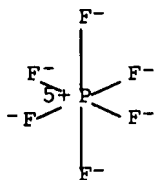


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 30 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:126817 HCAPLUS Full-text

DOCUMENT NUMBER: 126:132180

TITLE: Sulfonium compounds as polymerization initiators for
curable compositions

INVENTOR(S): Takahashi, Eiji

PATENT ASSIGNEE(S): Nippon Soda Co, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08325225	A	19961210	JP 1995-152187	19950526 <--
JP 3741387	B2	20060201		
PRIORITY APPLN. INFO.:			JP 1995-152187	19950526 <--
OTHER SOURCE(S):	MARPAT	126:132180		

ED Entered STN: 24 Feb 1997

AB Curable compns., useful as coatings, adhesives, photoresists, etc., contain sulfonium salts $R_1nC_6H_5-nS^+R_2R_3X^-$ (I; R_1 = alkyl, OH, C1-18 alkoxy, C1-18 alkylcarbonyl, aromatic carbonyl, SPh, halo; R_2 = C1-8 alkyl; R_3 = alicyclyl; X^- = non-nucleophilic anion; n = 0-3) as initiators, cationically polymerizable compds., and optional sensitizers. Thus, Ph 2-hydroxycyclohexyl sulfide was methylated by Me_2SO_4 at 50° for 10 h and treated with $KSbF_6$ to give 70% I (R_2 = 2-hydroxycyclohexyl, R_3 = Me, X^- = SbF_6^- , n = 0), 1.0 part of which was dissolved in propylene carbonate with 0.5 parts 4-MeOC₆H₄OH (sensitizer) and added to ERL 4221 (epoxy compound) to show good UV or thermal curing and storage stability.

IT 186419-09-0P 186419-12-5P 186419-14-7P
186419-17-0P 186419-19-2P
RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**
(**Preparation**); USES (Uses)
(sulfonium compds. as polymerization initiators for curable compns.)

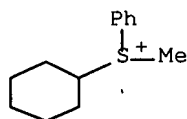
RN 186419-09-0 HCAPLUS

CN Sulfonium, cyclohexylmethylphenyl-, (OC-6-11)-hexafluoroantimonate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 186419-08-9

CMF C13 H19 S

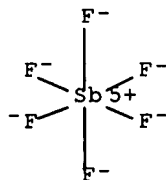


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



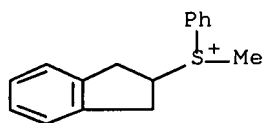
RN 186419-12-5 HCAPLUS

CN Sulfonium, (2,3-dihydro-1H-inden-2-yl)methylphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 186419-11-4

CMF C16 H17 S

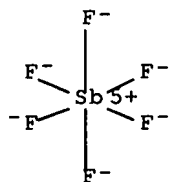


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



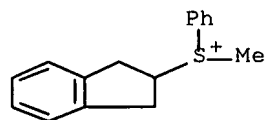
RN 186419-14-7 HCAPLUS

CN Sulfonium, (2,3-dihydro-1H-inden-2-yl)methylphenyl-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 186419-11-4

CMF C16 H17 S

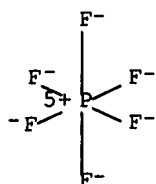


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



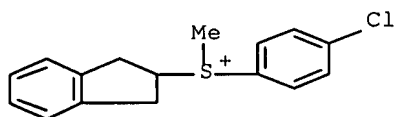
RN 186419-17-0 HCAPLUS

CN Sulfonium, (4-chlorophenyl) (2,3-dihydro-1H-inden-2-yl)methyl-,
(OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 186419-16-9

CMF C16 H16 Cl S

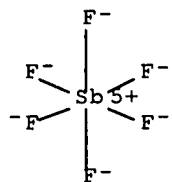


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



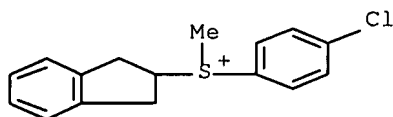
RN 186419-19-2 HCAPLUS

CN Sulfonium, (4-chlorophenyl) (2,3-dihydro-1H-inden-2-yl)methyl-,
hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 186419-16-9

CMF C16 H16 Cl S

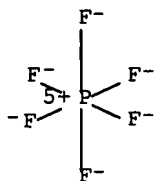


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 31 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:659897 HCAPLUS Full-text
 DOCUMENT NUMBER: 125:301656
 TITLE: Photoinitiated cationic polymerization with triarylsulfonium salts
 AUTHOR(S): Crivello, J. V.; Lam, J. H. W.
 CORPORATE SOURCE: Gen. Electr. Corp. Res. Dev., Schenectady, NY, 12301, USA
 SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (1996), 34(16), 3231-3253
 CODEN: JPACEC; ISSN: 0887-624X
 PUBLISHER: Wiley
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 08 Nov 1996
 AB Triarylsulfonium salts $\text{Ar}_3\text{S}^+\text{MXn}^-$ with complex metal halide anions such as BF_4^- , AsF_6^- , PF_6^- , and SbF_6^- are a new class of highly efficient photoinitiators for cationic polymerization. Mechanistic studies have shown that when these compds. are irradiated at wavelengths of 190-365 nm carbon-sulfur bond cleavage occurs to form radical fragments. At the same time the strong Broensted acid HMXn , which is the active initiator of cationic polymerization that takes place in subsequent "dark" steps, is also produced. A study of the parameters that affect the photolysis of triarylsulfonium salts is reported with a measurement of the absolute quantum yields. The cationic polymerization of four typical monomers, styrene oxide, cyclohexene oxide, THF, and 2-chloroethyl vinyl ether, with triarylsulfonium salt photoinitiators are described.
 IT 437-13-8P, Triphenylsulfonium tetrafluoroborate
 57900-42-2P, Triphenylsulfonium hexafluoroarsenate
 66482-56-2P 70636-43-0P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); **PREP** (Preparation); USES (Uses)

(photoinitiated cationic polymerization with triarylsulfonium salt catalysts)

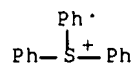
RN 437-13-8 HCAPLUS

CN Sulfonium, triphenyl-, tetrafluoroborate(1-) (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 18393-55-0

CMF C18 H15 S

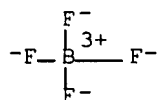


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



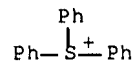
RN 57900-42-2 HCAPLUS

CN Sulfonium, triphenyl-, hexafluoroarsenate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 18393-55-0

CMF C18 H15 S

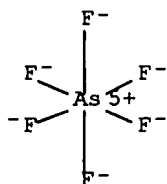


CM 2

CRN 16973-45-8

CMF As F6

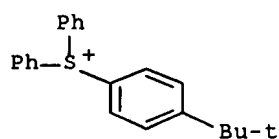
CCI CCS



RN 66482-56-2 HCAPLUS
 CN Sulfonium, [4-(1,1-dimethylethyl)phenyl]diphenyl-, hexafluorophosphate(1-)
 (9CI) (CA INDEX NAME)

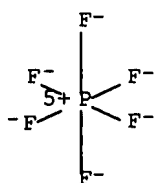
CM 1

CRN 66482-54-0
 CMF C22 H23 S



CM 2

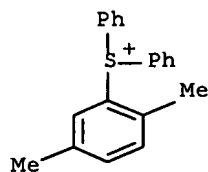
CRN 16919-18-9
 CMF F6 P
 CCI CCS



RN 70636-43-0 HCAPLUS
 CN Sulfonium, (2,5-dimethylphenyl)diphenyl-, hexafluoroarsenate(1-) (9CI)
 (CA INDEX NAME)

CM 1

CRN 47124-67-4
 CMF C20 H19 S

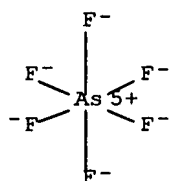


CM 2

CRN 16973-45-8

CMF As F6

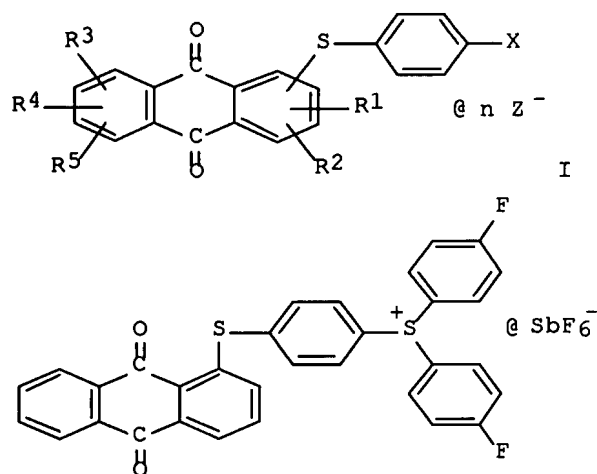
CCI CCS



L33 ANSWER 32 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:560275 HCAPLUS Full-text
 DOCUMENT NUMBER: 125:196686
 TITLE: Photoinitiator, photocurable resin therefrom and its cured product
 INVENTOR(S): Abe, Tetsuya; Yoshioka, Ritsuko; Ishii, Kazuhiko; Yokoshima, Minoru
 PATENT ASSIGNEE(S): Nippon Kayaku Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08157510	A	19960618	JP 1994-330969	19941209 <--
			JP 1994-330969	19941209 <--

PRIORITY APPLN. INFO.:
 OTHER SOURCE(S): MARPAT 125:196686
 ED Entered STN: 20 Sep 1996
 GI



AB A photocurable composition containing a storage-stable, transparent photoinitiator I that gives cured film good gloss and less odor is provided where R1 to R5 are H, nitro, Ph, alkoxy, cl-15 aliphatic group or -S-C6H4-X, X is substituted or unsubstituted (C6H5)2S+, n=1-4, Z is MQp or MQp-1 (M: P, B, As or Sb, Q: halogen, p=4-6). Thus, 1-phenylthioanthraquinone 45.3, 4,4'-difluorodiphenylsulfoxide 23.8, were reacted with NaSbF6 to give a yellow solid II 90.4 parts (m.P. 95.1-103.1), 1.5 parts of which was used to initiate a photopolymn. of epoxy resin Celloxide 2021 (80 parts)/EHPE 3150 (20 parts) to give satisfied properties.

IT **180974-23-6P**

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**

(**Preparation**); USES (Uses)

(photoinitiator, photocurable resin therefrom and its cured product)

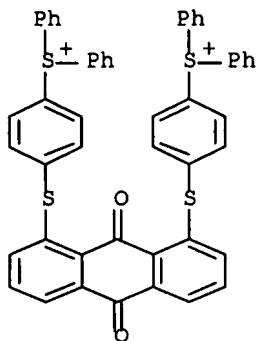
RN 180974-23-6 HCAPLUS

CN Sulfonium, [(9,10-dihydro-9,10-dioxo-1,8-anthracenediyl)bis(thio-4,1-phenylene)]bis[diphenyl-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 180974-22-5

CMF C50 H34 O2 S4

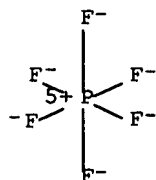


CM 2

CRN 16919-18-9

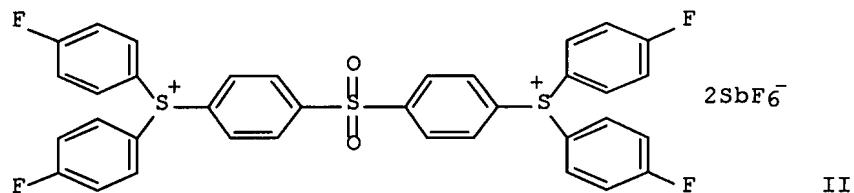
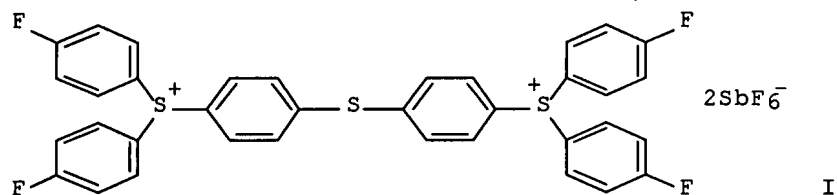
CMF F6 P

CCI CCS



L33 ANSWER 33 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:256323 HCAPLUS Full-text
 DOCUMENT NUMBER: 124:318806
 TITLE: Photopolymerization initiators, radiation-curable compositions, and their cured products
 INVENTOR(S): Abe, Tetsuya; Yokoshima, Minoru
 PATENT ASSIGNEE(S): Nippon Kayaku Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 08041116	A	19960213	JP 1994-193778	19940727 <--
JP 3424772	B2	20030707		
PRIORITY APPLN. INFO.:			JP 1994-193778	19940727 <--
OTHER SOURCE(S):	MARPAT	124:318806		
ED Entered STN:	02 May 1996			
GI				



AB Sulfonium- and sulfoxonium-type photopolymer initiators are synthesized and are used in radiation curable epoxy resins. Thus, compound I was oxidized with hydrogen peroxide to give compound II; II 1.5, Celloxide 2021 80, and EHPE 3150 20 parts were mixed and cured by UV to show transparency, storage stability, gloss, no odor, and tack free 23 mJ/cm².

IT **176310-56-8P**

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**

(Preparation); USES (Uses)

(preparation of photopolymer initiators and radiation-curable compns.)

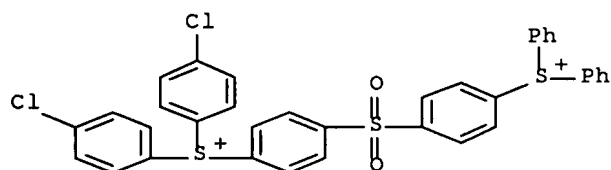
RN 176310-56-8 HCAPLUS

CN Sulfonium, bis(4-chlorophenyl)[4-[[4-(diphenylsulfonio)phenyl]sulfonyl]phenyl]-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 176310-55-7

CMF C36 H26 Cl2 O2 S3

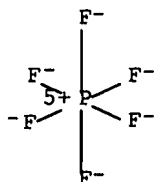


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



IT 176310-54-6P

RL: CAT (Catalyst use); IMF (Industrial manufacture); RCT (Reactant);
PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of photopolymn. initiators and radiation-curable compns.)

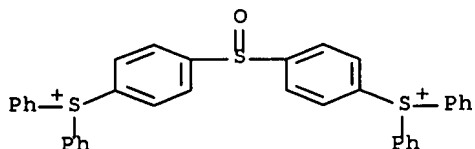
RN 176310-54-6 HCAPLUS

CN Sulfonium, (sulfinyldi-4,1-phenylene)bis[diphenyl-,
 bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 176310-53-5

CMF C36 H28 O S3

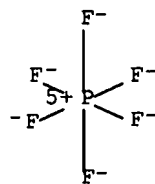


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 34 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:241742 HCAPLUS Full-text

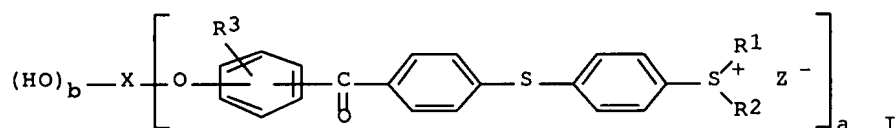
DOCUMENT NUMBER: 124:319787

TITLE: Energy ray-curable coating compositions with good
 storage stability and cured products therefrom with
 good luster

INVENTOR(S): Abe, Tetsuya; Yokoshima, Minoru

PATENT ASSIGNEE(S): Nippon Kayaku Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08027208	A	19960130	JP 1994-185116	19940715 <--
JP 3402520	B2	20030506		
PRIORITY APPLN. INFO.:			JP 1994-185116	19940715 <--
ED Entered STN: 25 Apr 1996				
GI				



AB Title cured products are prepared by curing compns. containing cationically polymerizable substances and sulfonium salts I (X = organic group; R1-2 = aromatic group; R3 = H, NO2, alkoxy, C1-10 aliphatic group, Ph, PhO, thiophenoxy; a ≥ 1; b ≥ 0; a + b ≥ 1; Z = MQm, MQm-1OH; M = P, B, As, Sb; Q = halo; m = 4-6). Thus, 1.68 parts poly(4-vinylphenol) was treated with 5.1 parts 1,4-FC6H4CO-1,4-C6H4S-1,4-C6H4S+Ph2.SbF6- to give a sulfonium salt, 3 parts of which was mixed with 80 parts Celloxide 2021 and 20 parts EHPE 3150 to give a composition with good transparency and storage stability. The composition was applied onto Al panel and irradiated with UV rays to give a coating showing good gloss.

IT 176372-71-7P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PRP (Properties);
 PREP (Preparation); USES (Uses)

(curing accelerator; for energy ray-curable epoxy resin coating compns.
 with good storage stability and luster)

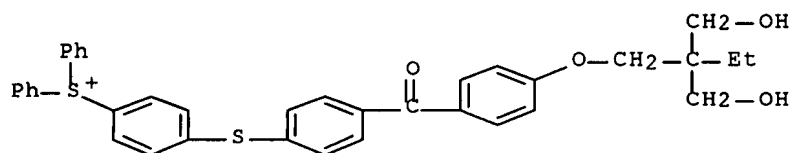
RN 176372-71-7 HCAPLUS

CN Sulfonium, [4-[[4-[4-[2,2-bis(hydroxymethyl)butoxy]benzoyl]phenyl]thio]phenyl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 176205-44-0

CMF C37 H35 O4 S2

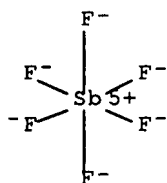


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS

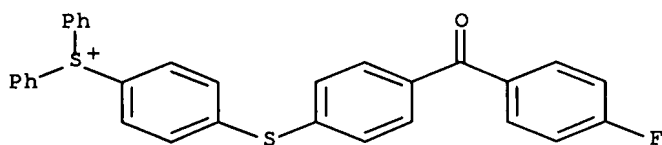


IT **176372-70-6DP**, reaction products with poly(vinylphenol)
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PRP (Properties);
PREP (Preparation); USES (Uses)
 (curing accelerators; for energy ray-curable epoxy resin coating
 comps. with good storage stability and luster)
 RN 176372-70-6 HCAPLUS
 CN Sulfonium, [4-[[4-(4-fluorobenzoyl)phenyl]thio]phenyl]diphenyl-,
 (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 176205-43-9

CMF C31 H22 F O S2

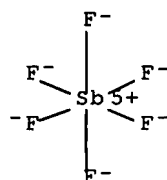


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



IT 176372-70-6P

RL: IMF (Industrial manufacture); RCT (Reactant); **PREP****(Preparation)**; RACT (Reactant or reagent)

(reaction with poly(vinylphenol); for manufacture of sulfonium salt curing accelerators for epoxy resin coatings with good storage stability and luster)

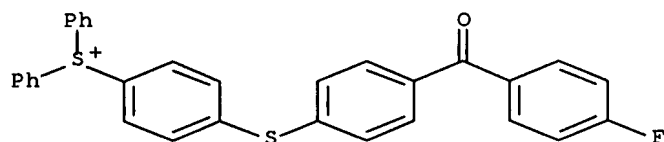
RN 176372-70-6 HCAPLUS

CN Sulfonium, [4-[[4-(4-fluorobenzoyl)phenyl]thio]phenyl]diphenyl-,
(OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 176205-43-9

CMF C31 H22 F O S2

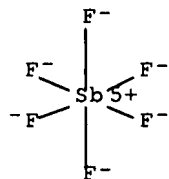


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



L33 ANSWER 35 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:995040 HCAPLUS Full-text

DOCUMENT NUMBER: 124:57010

TITLE: Sulfonium salt compound and polymerization initiator

INVENTOR(S): Takahashi, Eiji; Muramoto, Hiroo

PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan

SOURCE: PCT Int. Appl., 20 pp.

CODEN: PIXXD2

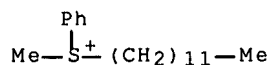
DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9524387	A1	19950914	WO 1995-JP364	19950307 <--
W: US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 07300505	A	19951114	JP 1995-53761	19950220 <--
JP 3555119	B2	20040818		
EP 751124	A1	19970102	EP 1995-910754	19950307 <--
EP 751124	B1	20001213		
R: CH, DE, FR, GB, IT, LI				
JP 07300504	A	19951114	JP 1995-77418	19950308 <--
US 5798396	A	19980825	US 1996-704631	19960904 <--
PRIORITY APPLN. INFO.:			JP 1994-65719	A 19940309 <--
			WO 1995-JP364	W 19950307 <--
OTHER SOURCE(S): MARPAT 124:57010				
ED Entered STN: 22 Dec 1995				
AB	Compds. R1nC6H5-nS+R2CR3R4CR5R6R7·X- (R1 = C1-18 alkyl, OH, C1-18 alkoxy, C1-18 alkylcarbonyloxy, halo; n = 0-3; when n = 2 or 3, R1's may be different from each other; R2 = C1-6 alkyl; R3, R4 = H, C1-6 alkyl; R5, R6 = H, C1-6 alkyl, OH, C1-6 alkoxy, C1-18 alkylcarbonyloxy, aromatic carbonyloxy; R7 = C4-20 alkyl, C6H5-mR8m; R8 = C1-18 alkyl, OH, C1-18 alkoxy, C1-18 alkylcarbonyloxy, aromatic carbonyloxy, halo; m = 0-3; when m = 2 or 3, R8's may be different from each other; X = nonnucleophilic anion residue). A curable composition particularly comprising this sulfonium salt compound, a sensitizer, and a cationically polymerizable compound is cured by heat or light in a short time, it is suitably usable as coating material, adhesive and photoresist.			
IT	172211-02-8P			
	RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)			
	(sulfonium salt compound and polymerization initiators)			
RN	172211-02-8 HCAPLUS			
CN	Sulfonium, dodecylmethylphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)			
CM	1			
CRN	88926-69-6			
CMF	C19 H33 S			

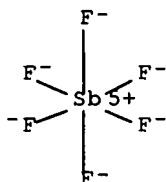


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



L33 ANSWER 36 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:629957 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:56843
 TITLE: Novel onium salt, photopolymerization initiator,
 energy ray-curing composition containing the
 initiator, and cured product
 INVENTOR(S): Abe, Tetsuya; Ishii, Kazuhiko; Yokoshima, Minoru
 PATENT ASSIGNEE(S): Nippon Kayaku K. K., Japan
 SOURCE: Eur. Pat. Appl., 33 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 629613	A2	19941221	EP 1994-108834	19940609 <--
EP 629613	B1	19971015		
R: CH, DE, FR, GB, IT, LI				
US 5502083	A	19960326	US 1994-255469	19940608 <--
JP 07061964	A	19950307	JP 1994-154346	19940614 <--
JP 3625219	B2	20050302		
US 5534557	A	19960709	US 1995-459027	19950602 <--
PRIORITY APPLN. INFO.:			JP 1993-170853	A 19930618 <--
			US 1994-255469	A3 19940608 <--

OTHER SOURCE(S): MARPAT 123:56843

ED Entered STN: 22 Jun 1995

AB The compns., which are excellent in compatibility, transparency and curability and give a cured coat of excellent gloss and of less smell, contain an onium salt A(CO-p-C6H4S-p-C6H4X)a(CO-p-C6H4SPh)b.nZ- [A = mono- to tetra-valent aromatic group; X = (substituted) bisphenylsulfonio group; a = 1-4, b = 0-3, a + b = 1-4, n = 1-4; Z = MQm(OH)l; M = B, P, As, Sb; Q = halo; m = 3-6; l = 0-1; m + l = 4-6]. Thus, UV irradiation of 80 parts Celoxide 2021 (an alicyclic epoxy resin) and 20 parts EHPE 3150 (an alicyclic epoxy resin) in the presence of 1.5 parts PhCO-p-C6H4S-p-C6H4S+(p-C6H4F)2.SbF6- gave a cured product with good transparency and no smell.

IT **164008-91-7P 164008-95-1P 164008-97-3P**

RL: CAT (Catalyst use); SPN (Synthetic preparation); **PREP**

(Preparation); USES (Uses)

(preparation of novel onium salts as photopolymn. initiators)

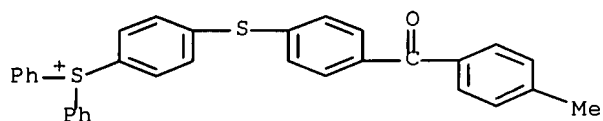
RN 164008-91-7 HCAPLUS

CN Sulfonium, [4-[[4-(4-methylbenzoyl)phenyl]thio]phenyl]diphenyl-,
 (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 164008-90-6

CMF C32 H25 O S2

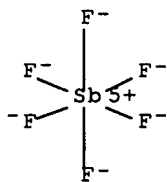


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



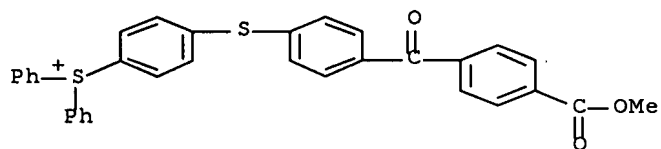
RN 164008-95-1 HCAPLUS

CN Sulfonium, [4-[[4-[4-(methoxycarbonyl)benzoyl]phenyl]thio]phenyl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 164008-94-0

CMF C33 H25 O3 S2

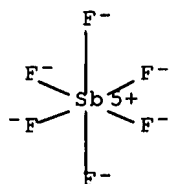


CM 2

CRN 17111-95-4

CMF F6 Sb

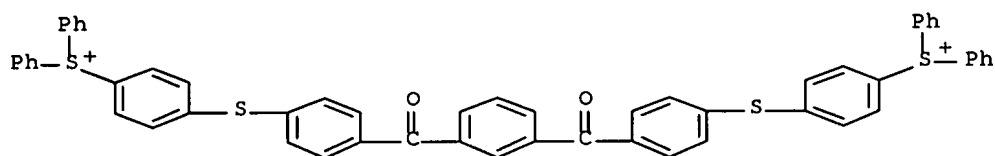
CCI CCS



RN 164008-97-3 HCAPLUS
 CN Sulfonium, [1,3-phenylenebis(carbonyl-4,1-phenylenethio-4,1-phenylene)]bis[diphenyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI)
 (CA INDEX NAME)

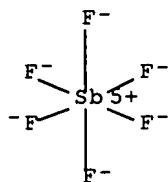
CM 1

CRN 164008-96-2
 CMF C56 H40 O2 S4



CM 2

CRN 17111-95-4
 CMF F6 Sb
 CCI CCS



L33 ANSWER 37 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:619936 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:144906
 TITLE: Preparation of arylsulfonium salts as polymerization
 initiators
 INVENTOR(S): Abe, Tetsuya; Yokoshima, Minoru
 PATENT ASSIGNEE(S): Nippon Kayaku Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07082245	A	19950328	JP 1993-249756	19930913 <--
PRIORITY APPLN. INFO.:			JP 1993-249756	19930913 <--

ED Entered STN: 17 Jun 1995

AB Sulfonium salts useful as cationic photopolymn. initiators are prepared by reacting diaryl sulfoxides with aryl alkyl (thio)ethers or polyaryl sulfides in the presence of polyphosphoric acid, followed by reacting the resulting sulfonium complexes with hexafluoro alkali metal salts. Thus, Ph₂SO and Ph₂S were heated with A at 120° for 5 h, then reacted with KPF₆ in H₂O for 1 h to give 90% (4-thiophenoxyphenyl)diphenylsulfonium hexafluorophosphate (I). I 1.5, Celoxide 2021 (epoxy resin) 80, and EHPE 3150 (epoxy resin) 20 parts were mixed and irradiated by UV light (75 mJ/cm²) to show good curing property.

IT 75482-18-7P 164008-97-3P 167021-77-4P
 167021-79-6P

RL: CAT (Catalyst use); SPN (Synthetic preparation); **PREP**
(Preparation); USES (Uses)

(preparation of arylsulfonium salts as cationic photopolymn. catalysts)

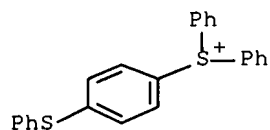
RN 75482-18-7 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, hexafluorophosphate(1-) (9CI)
 (CA INDEX NAME)

CM 1

CRN 47480-44-4

CMF C24 H19 S2

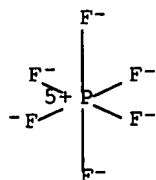


CM 2

CRN 16919-18-9

CMF F6 P

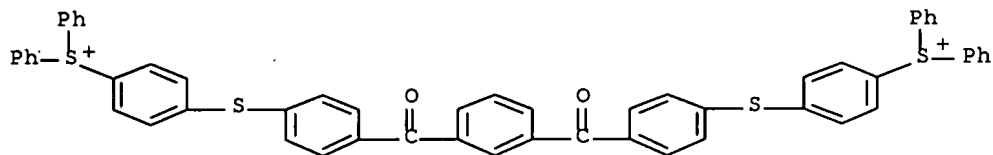
CCI CCS



RN 164008-97-3 HCAPLUS
 CN Sulfonium, [1,3-phenylenebis(carbonyl-4,1-phenylenethio-4,1-phenylene)]bis[diphenyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI)
 (CA INDEX NAME)

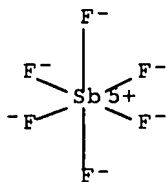
CM 1

CRN 164008-96-2
 CMF C56 H40 O2 S4



CM 2

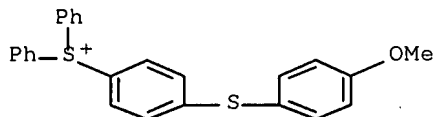
CRN 17111-95-4
 CMF F6 Sb
 CCI CCS



RN 167021-77-4 HCAPLUS
 CN Sulfonium, [4-[(4-methoxyphenyl)thio]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

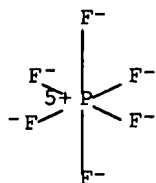
CM 1

CRN 167021-76-3
 CMF C25 H21 O S2



CM 2

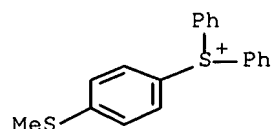
CRN 16919-18-9
CMF F6 P
CCI CCS



RN 167021-79-6 HCAPLUS
CN Sulfonium, [4-(methylthio)phenyl]diphenyl-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

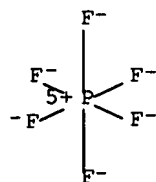
CM 1

CRN 167021-78-5
CMF C19 H17 S2



CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



L33 ANSWER 38 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:619935 HCAPLUS Full-text
DOCUMENT NUMBER: 123:144905
TITLE: Preparation of arylsulfonium salts as polymerization
initiators
INVENTOR(S): Abe, Tetsuya; Yokoshima, Minoru
PATENT ASSIGNEE(S): Nippon Kayaku Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07082244	A	19950328	JP 1993-249755	19930913 <--
PRIORITY APPLN. INFO.:			JP 1993-249755	19930913 <--

ED Entered STN: 17 Jun 1995

AB Sulfonium salts useful as cationic photopolymer. initiators are prepared by reacting diaryl sulfoxides with polyaryl sulfides in the presence of acid anhydrides in alkylsulfonic acid solns., followed by reacting the resulting sulfonium complexes with hexafluoro alkali metal salts. Thus, Ph₂SO and Ph₂S were heated with Ac₂O and MeSO₃H at 80° for 6 h, then reacted with aqueous solution of KPF₆ for 1 h to give 88% (4-thiophenoxyphenyl)diphenylsulfonium hexafluorophosphate (I). I 1.5, Celloxide 2021 (epoxy resin) 80, and EHPE 3150 (epoxy resin) 20 parts were mixed and irradiated by UV light (75 mJ/cm²) to show good curing property.

IT **75482-18-7P 164008-97-3P**

RL: CAT (Catalyst use); SPN (Synthetic preparation); **PREP**
(Preparation); USES (Uses)

(preparation of arylsulfonium salts as cationic photopolymer. catalysts)

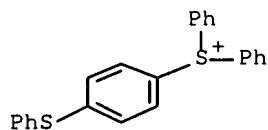
RN 75482-18-7 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, hexafluorophosphate(1-) (9CI)
 (CA INDEX NAME)

CM 1

CRN 47480-44-4

CMF C24 H19 S2

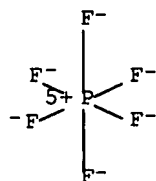


CM 2

CRN 16919-18-9

CMF F6 P

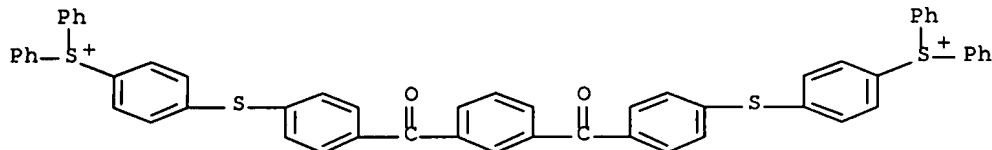
CCI CCS



RN 164008-97-3 HCAPLUS
 CN Sulfonium, [1,3-phenylenebis(carbonyl-4,1-phenylenethio-4,1-phenylene)]bis[diphenyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI)
 (CA INDEX NAME)

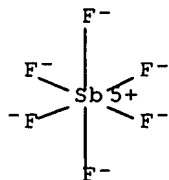
CM 1

CRN 164008-96-2
 CMF C56 H40 O2 S4



CM 2

CRN 17111-95-4
 CMF F6 Sb
 CCI CCS



L33 ANSWER 39 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:499763 HCAPLUS Full-text
 DOCUMENT NUMBER: 124:88938
 TITLE: Radiation-curable compositions containing cationically curable compounds and onium group-containing initiators
 INVENTOR(S): Abe, Tetsuya; Ishii, Kazuhiko; Yokoshima, Minoru
 PATENT ASSIGNEE(S): Nippon Kayaku Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07025922	A	19950127	JP 1993-196775	19930715 <--

PRIORITY APPLN. INFO.:

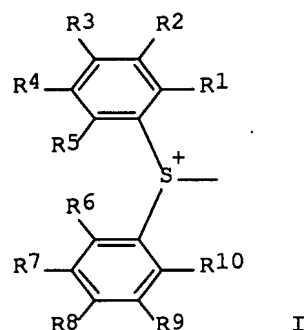
JP 1993-196775

19930715 <--

OTHER SOURCE(S): MARPAT 124:88938

ED Entered STN: 20 Apr 1995

GI



AB The title compns. contain sulfonium group-containing initiators and give cured compns. showing good compatibility. Reacting 18.6 g Ph₂S with 7.3 parts adipic acid in MeSO₃H in the presence of P₂O₅ and treating the product with Ph₂SO gave a photopolymer. initiator which was mixed with Celloside 2021 and EHPE 3150 to give a photocurable composition showing good transparency and storage stability and a high curing rate.

IT 167487-95-8P 167487-96-9P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP

(Preparation); USES (Uses)

(catalysts; for photocuring of cationically polymerizable compns.)

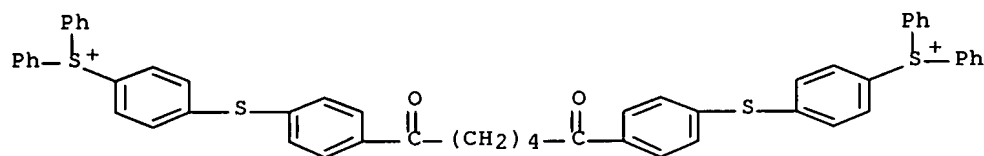
RN 167487-95-8 HCAPLUS

CN Sulfonium, [(1,6-dioxo-1,6-hexanediyl)bis(4,1-phenylenethio-4,1-phenylene)]bis[diphenyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI)
(CA INDEX NAME)

CM 1

CRN 167160-92-1

CMF C54 H44 O2 S4

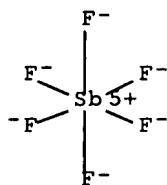


CM 2

CRN 17111-95-4

CMF F6 Sb

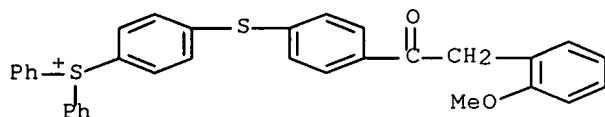
CCI CCS



RN 167487-96-9 HCAPLUS
 CN Sulfonium, [4-[[4-[(2-methoxyphenyl)acetyl]phenyl]thio]phenyl]diphenyl-,
 (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

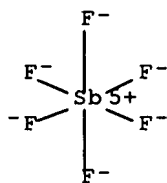
CM 1

CRN 167160-93-2
 CMF C33 H27 O2 S2



CM 2

CRN 17111-95-4
 CMF F6 Sb
 CCI CCS



L33 ANSWER 40 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:392568 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:214842
 TITLE: Sulfonium salts and polymerization initiators
 INVENTOR(S): Takahashi, Eiji; Muramoto, Hiroo
 PATENT ASSIGNEE(S): Nippon Soda Co, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06345726	A	19941220	JP 1993-168567	19930615 <--
PRIORITY APPLN. INFO.:			JP 1993-168567	19930615 <--

OTHER SOURCE(S): MARPAT 122:214842

ED Entered STN: 04 Mar 1995

AB Cationic polymerization initiators contain $R_1C_6H_4S+R_2(CH_2R_3) \cdot X^-$ [$R_1 = H$, alkyl, halo, CO_2H , alkoxycarbonyl; $R_2 = alkyl$; $R_3 = (substituted) Ph$, (substituted) naphthyl; $X = SbF_6^-$, AsF_6^- , PF_6^- , BF_4^-] and/or $R_4C_6H_4S+R_5R_6 \cdot X^-$ ($R_4 = H$, alkyl, halo, OH , alkoxy, CO_2H , alkanoyl; $R_5 = alkyl$; $R_6 = alkenyl$, α -alkylbenzyl, α, α -dialkylbenzyl, α -phenylbenzyl, fluorenyl). ERL 4221 (alicyclic epoxy resin) was cured with $PhCH_2S+PhMe \cdot SbF_6^-$ in propylene carbonate to show an exothermal peak in DSC at 94° .

IT 161887-51-0P

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP****(Preparation)**; USES (Uses)

(preparation of sulfonium salts as polymerization initiators)

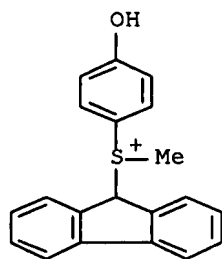
RN 161887-51-0 HCAPLUS

CN Sulfonium, 9H-fluoren-9-yl(4-hydroxyphenyl)methyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 161887-50-9

CMF C20 H17 O S

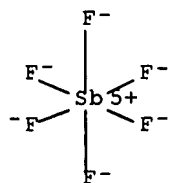


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS

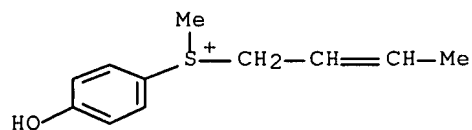


IT 152334-11-7P 161887-41-8P, Methallylmethylphenylsulfonium hexafluoroantimonate 161887-45-2P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of sulfonium salts as polymerization initiators)
 RN 152334-11-7 HCAPLUS
 CN Sulfonium, 2-butenyl(4-hydroxyphenyl)methyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 152334-10-6

CMF C11 H15 O S

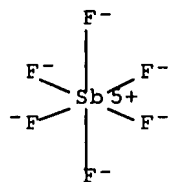


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS

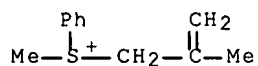


RN 161887-41-8 HCAPLUS
 CN Sulfonium, methyl(2-methyl-2-propenyl)phenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

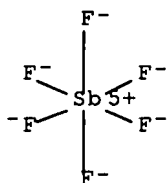
CRN 161887-40-7

CMF C11 H15 S



CM 2

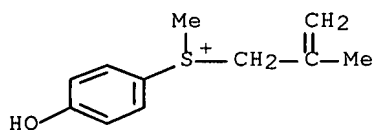
CRN 17111-95-4
 CMF F6 Sb
 CCI CCS



RN 161887-45-2 HCAPLUS
 CN Sulfonium, (4-hydroxyphenyl)methyl (2-methyl-2-propenyl)-,
 (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

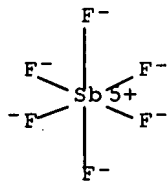
CM 1

CRN 161887-44-1
 CMF C11 H15 O S



CM 2

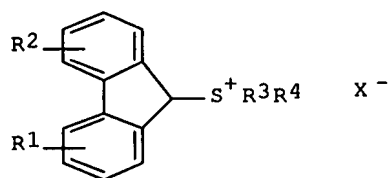
CRN 17111-95-4
 CMF F6 Sb
 CCI CCS



L33 ANSWER 41 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:268772 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:215632
 TITLE: Fluorenyl group-containing sulfonium compounds as
 polymerization initiators
 INVENTOR(S): Takahashi, Eiji; Muramoto, Hiroo

PATENT ASSIGNEE(S): Nippon Soda Co, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06271532	A	19940927	JP 1993-80173	19930315 <--
JP 3512437	B2	20040329		
PRIORITY APPLN. INFO.:			JP 1993-80173	19930315 <--
OTHER SOURCE(S):			MARPAT 122:215632	
ED Entered STN: 01 Jan 1995				
GI				



AB Sulfonium compds. RS+R1R2 X- [R = (substituted) 9H-fluoren-9-yl; R1-2 = alkyl; R3R4 = ring-completing group; X = SbF6, AsF6, PF6, BF4] are useful as initiators for cationic polymerization. Reacting 9-bromofluorene with Me2S and treatment with KSbF6 gave RS+Me2 SbF6- (R = 9H-fluoren-9-yl) which was mixed with an epoxy resin (ERL 4221) and irradiated to give rapid curing.

IT **161713-27-5P**

RL: CAT (Catalyst use); IMF (Industrial manufacture); **PREP**

(Preparation); USES (Uses)

(catalysts; for cationic curing of epoxy resins)

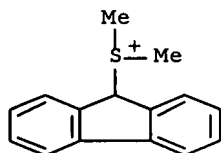
RN 161713-27-5 HCAPLUS

CN Sulfonium, 9H-fluoren-9-yl dimethyl-, (OC-6-11)-hexafluoroantimonate(1-)
 (9CI) (CA INDEX NAME)

CM 1

CRN 64579-06-2

CMF C15 H15 S

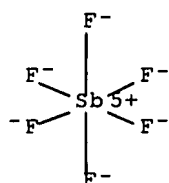


CM 2

CRN 17111-95-4

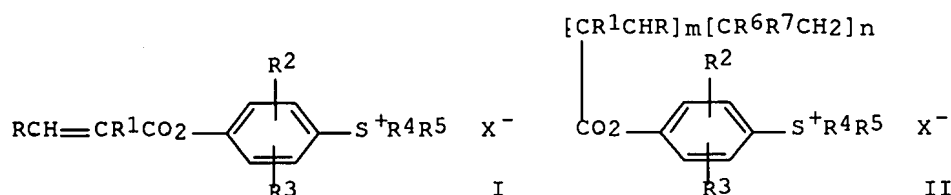
CMF F6 Sb

CCI CCS



L33 ANSWER 42 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:198693 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:161719
 TITLE: Dialkylsulfoniophenyl unsaturated carboxylate monomers and their polymers
 INVENTOR(S): Muraoka, Tokuyuki; Takashita, Katsushige; Koizumi, Tatsuya
 PATENT ASSIGNEE(S): Sanshin Kagaku Kogyo Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06228086	A	19940816	JP 1993-39356	19930202 <--
PRIORITY APPLN. INFO.:			JP 1993-39356	19930202 <--
ED Entered STN: 17 Nov 1994				
GI				



AB The title monomers I [$\text{R} = \text{H}$, C1-4 alkyl; $\text{R}^1 = \text{H}$, C1-4 alkyl; $\text{R}^2-3 = \text{H}$, halo, C1-4 alkyl, C1-4 alkoxy; $\text{R}^4-5 = (\text{substituted}) \text{ alkyl}$; $\text{X} = \text{SbF}_6, \text{AsF}_6, \text{PF}_6, \text{BF}_4$] and their polymers II (R , R^1-5 , $\text{X} = \text{same as I}$; $\text{R}^6-7 = \text{H}$, halo, organic group; $0 < m \leq 100$; $m + n = 100$), useful as crosslinking catalysts or catalysts for photoresists (no data), are manufactured. Thus, 4-(dimethylsulfonio)phenyl methacrylate Me sulfate was treated with KSbF_6 at room temperature for 10 min to give 82.2% I ($\text{R} = \text{R}^2-3 = \text{H}$, $\text{R}^1 = \text{R}^4-5 = \text{Me}$, $\text{X} = \text{SbF}_6$), which was

polymerized with AIBN in MeCN at 60° for 24 h to give 88.0% II (R = R2-3 = H, R1 = R4-5 = Me, X = SbF6, n = 0).

IT **161455-08-9P**, Poly[4-(dimethylsulfonio)phenyl methacrylate hexafluoroantimonate] **161455-09-0P**, 4-(Dimethylsulfonio)phenyl methacrylate hexafluoroantimonate-styrene copolymer **161455-11-4P** **161455-12-5P**

RL: IMF (Industrial manufacture); **PREP (Preparation)**

(preparation of sulfoniophenyl unsatd. carboxylates and their polymers)

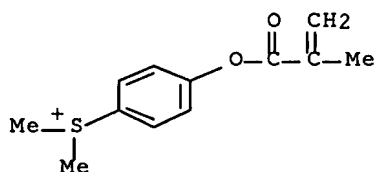
RN 161455-08-9 HCAPLUS

CN Sulfonium, dimethyl[4-[(2-methyl-1-oxo-2-propenyl)oxy]phenyl]-, (OC-6-11)-hexafluoroantimonate(1-), homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 141718-72-1

CMF C12 H15 O2 S

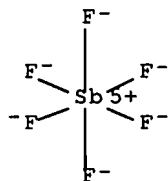


CM 2

CRN 171111-95-4

CMF F6 Sb

CCI CCS



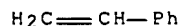
RN 161455-09-0 HCAPLUS

CN Sulfonium, dimethyl[4-[(2-methyl-1-oxo-2-propenyl)oxy]phenyl]-, (OC-6-11)-hexafluoroantimonate(1-), polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8



CM 2

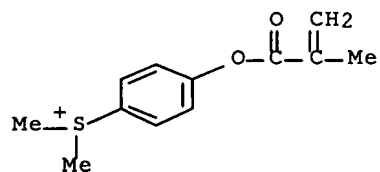
CRN 161455-05-6

CMF C12 H15 O2 S . F6 Sb

CM 3

CRN 141718-72-1

CMF C12 H15 O2 S

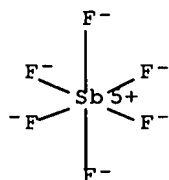


CM 4

CRN 17111-95-4

CMF F6 Sb

CCI CCS



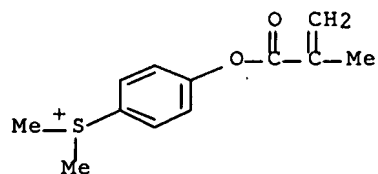
RN 161455-11-4 HCAPLUS

CN Sulfonium, dimethyl[4-[(2-methyl-1-oxo-2-propenyl)oxy]phenyl]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 141718-72-1

CMF C12 H15 O2 S

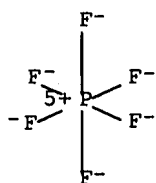


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



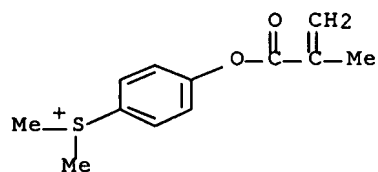
RN 161455-12-5 HCAPLUS

CN Sulfonium, dimethyl[4-[(2-methyl-1-oxo-2-propenyl)oxy]phenyl]-, hexafluorophosphate(1-), homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 141718-72-1

CMF C12 H15 O2 S

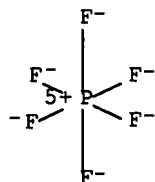


CM 2

CRN 16919-18-9

CMF F6 P

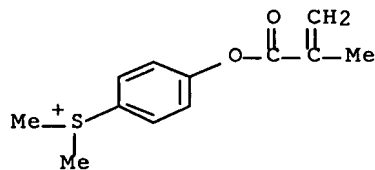
CCI CCS



IT 161455-05-6P, 4-(Dimethylsulfonio)phenyl methacrylate
hexafluoroantimonate
RL: IMF (Industrial manufacture); RCT (Reactant); **PREP**
(Preparation); RACT (Reactant or reagent)
(preparation of sulfoniophenyl unsatd. carboxylates and their polymers)
RN 161455-05-6 HCAPLUS
CN Sulfonium, dimethyl[4-[(2-methyl-1-oxo-2-propenyl)oxy]phenyl]-,
(OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

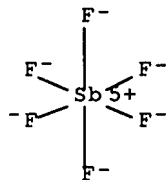
CM 1

CRN 141718-72-1
CMF C12 H15 O2 S



CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



L33 ANSWER 43 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:246023 HCAPLUS Full-text
DOCUMENT NUMBER: 120:246023
TITLE: Dialkyl(alkoxyphenyl)sulfonium salt cationic UV
initiators

INVENTOR(S): Dougherty, James A.; Crivello, James V.
 PATENT ASSIGNEE(S): ISP Investments, Inc., USA
 SOURCE: U.S., 5 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5274148	A	19931228	US 1992-926426	19920810 <--
WO 9403551	A1	19940217	WO 1993-US5895	19930618 <--
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9345415	A	19940303	AU 1993-45415	19930618 <--
EP 656041	A1	19950607	EP 1993-915428	19930618 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08500100	T	19960109	JP 1993-505290	19930618 <--
PRIORITY APPLN. INFO.:			US 1992-926426	A 19920810 <--
			WO 1993-US5895	W 19930618 <--

OTHER SOURCE(S): MARPAT 120:246023

ED Entered STN: 14 May 1994

AB The initiators, R1R2(p-ROC6H4)S+X- (R = C16-18 alkyl; R1, R2 = independently C4-, C6- and C10-alkyl; X- = nonbasic nonnucleophilic anion) are used in the polymerization of mono- and polyfunctional glycidyl ethers, α -olefin oxides and vinyl ether monomers or oligomers. Thus, (p-C16H33OC6H4)Bu2S+SbF6- (I) was prepared in 56.8% yield by adding dropwise Bu2SO in CH2Cl2 to a mixture of n-hexadecyl Ph ether, CH2Cl2, 1:10 P2O5/MeSO3H at <25°, pouring into H2O, adding acetone to the CH2Cl2 layer, and adding NaSbF6 in acetone. The photoactivity of I was confirmed by dissolving 1 wt% in triethylene glycol divinyl ether, casting on a glass plate, and exposing to UV to give a tack-free film instantly with 60 mJ/cm2 irradiation

IT 154438-45-6P 154438-46-7P 154438-47-8P

154438-48-9P 154438-52-5P 154438-54-7P

154438-56-9P

RL: PREP (Preparation)

(preparation of, as photoinitiator for vinyl ethers)

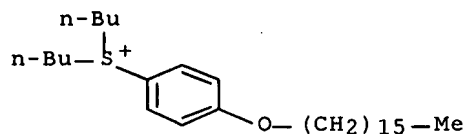
RN 154438-45-6 HCAPLUS

CN Sulfonium, dibutyl[4-(hexadecyloxy)phenyl]-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

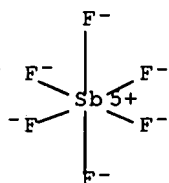
CRN 154438-44-5

CMF C30 H55 O S



CM 2

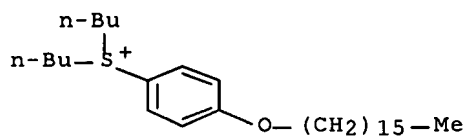
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 154438-46-7 HCAPLUS
CN Sulfonium, dibutyl[4-(hexadecyloxy)phenyl]-, hexafluoroarsenate(1-) (9CI)
(CA INDEX NAME)

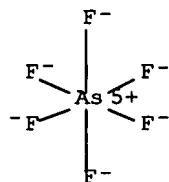
CM 1

CRN 154438-44-5
CMF C30 H55 O S



CM 2

CRN 16973-45-8
CMF As F6
CCI CCS

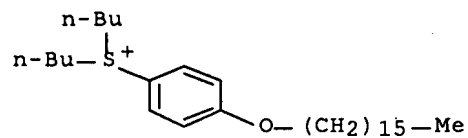


RN 154438-47-8 HCAPLUS
CN Sulfonium, dibutyl[4-(hexadecyloxy)phenyl]-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 154438-44-5

CMF C30 H55 O S

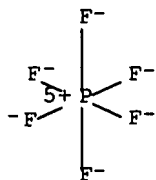


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



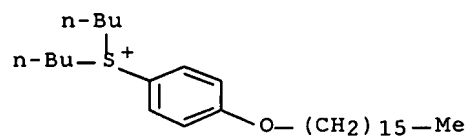
RN 154438-48-9 HCAPLUS

CN Sulfonium, dibutyl[4-(hexadecyloxy)phenyl]-, tetrafluoroborate(i-) (9CI)
(CA INDEX NAME)

CM 1

CRN 154438-44-5

CMF C30 H55 O S

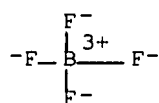


CM 2

CRN 14874-70-5

CMF B F4

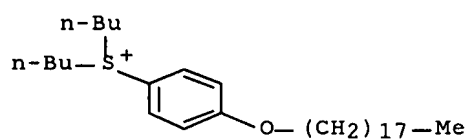
CCI CCS



RN 154438-52-5 HCAPLUS
CN Sulfonium, dibutyl[4-(octadecyloxy)phenyl]-, (OC-6-11)-
hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

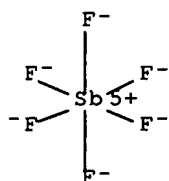
CM 1

CRN 154438-51-4
CMF C32 H59 O S



CM 2

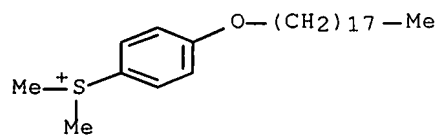
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 154438-54-7 HCAPLUS
CN Sulfonium, dimethyl[4-(octadecyloxy)phenyl]-, (OC-6-11)-
hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 154438-53-6
CMF C26 H47 O S

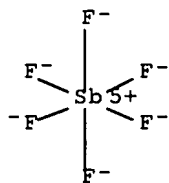


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



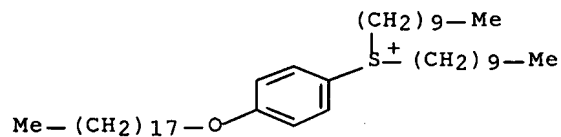
RN 154438-56-9 HCAPLUS

CN Sulfonium, didecyl[4-(octadecyloxy)phenyl]-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 154438-55-8

CMF C44 H83 O, S

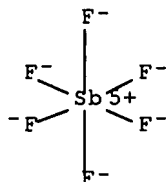


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



L33 ANSWER 44 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:192368 HCAPLUS Full-text

DOCUMENT NUMBER: 118:192368

TITLE: Cationic polymerization with p-substituted benzyl
p-hydroxyphenyl methyl sulfonium salts: effect on
substituents and mechanistic aspects of initiation
reactionAUTHOR(S): Hamazu, Fumio; Akashi, Sumio; Koizumi, Tatsuya;
Takata, Toshikazu; Endo, TakeshiCORPORATE SOURCE: Res. Lab. Resour. Util., Tokyo Inst. Technol.,
Yokohama, 227, JapanSOURCE: Journal of Polymer Science, Part A: Polymer Chemistry
(1993), 31(4), 1023-8

CODEN: JPACEC; ISSN: 0887-624X

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 14 May 1993

AB Various (p-X-substituted benzyl) (p-hydroxyphenyl) (methyl)sulfonium hexafluoroantimonates (I; X = H, Me, NO₂, Cl) were synthesized and their initiator activities were evaluated in bulk polymerization of glycidyl Ph ether. The order of activity was I (X = Me) > I (X = H) (II) ≈ I (X = Cl) > I (X = NO₂), indicating that the introduction of an electron-donating group enhanced the activity. In Hammett plots, the logarithm of the ratio of the polymerization rates was correlated with σ^+ better than with σ and a neg. ρ^+ value (-1.18) was obtained. Reaction of II with PhCH₂SH mainly gave (PhCH₂)₂S and p-hydroxyphenyl Me sulfide. The OH group of the aryl group yielded no proton as initiator for the polymerization, whereas the benzyl group caused the polymerization, which was initiated by the corresponding benzyl cation formed by C-S bond cleavage.

IT 88830-85-7P

RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of)

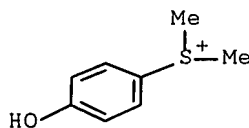
RN 88830-85-7 HCAPLUS

CN Sulfonium, (4-hydroxyphenyl)dimethyl-, (OC-6-11)-hexafluoroantimonate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 45797-54-4

CMF C8 H11 O S

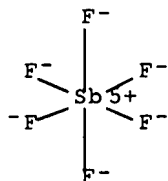


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



L33 ANSWER 45 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1992:256249 HCAPLUS Full-text
 DOCUMENT NUMBER: 116:256249
 TITLE: Manufacture of triarylsulfonium hexafluorometal or
 -metalloid salts for photopolymerization catalysts
 INVENTOR(S): Crivello, James Vincent; Lee, Julia Lam
 PATENT ASSIGNEE(S): General Electric Co., USA
 SOURCE: Eur. Pat. Appl., 7 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 455083	A1	19911106	EP 1991-106407	19910421 <--
EP 455083	B1	19950301		
R: BE, DE, ES, FR, GB, IT, NL				
CA 2034400	A1	19911031	CA 1991-2034400	19910117 <--
ES 2070356	T3	19950601	ES 1991-106407	19910421 <--
JP 05004996	A	19930114	JP 1991-117872	19910423 <--
JP 07053709	B	19950607		
US 5446172	A	19950829	US 1991-769520	19911002 <--
PRIORITY APPLN. INFO.:			US 1990-516408	A 19900430 <--

OTHER SOURCE(S): MARPAT 116:256249

ED Entered STN: 27 Jun 1992

AB Salts for the title use are manufactured by reaction of a diaryl sulfoxide with thiophene, an aryl alkyl ether, an aryl alkyl thioether, or a polythioarylene in the presence of P2O5 in MeSO3H, and metathetical reaction of the resulting triarylsulfonium complex with an alkali-metal hexafluorometal or metalloid salt. Thus, stirring 20 mL P2O5-MeSO3H with 5.05 g Ph2SO and 2.7 g anisole 1.5 h at 50°, pouring the mixture into 200 mL water, and adding 13.0 g NaSbF6 gave a salt (I). A 1-mil film of a solution of 1% I in 4-vinylcyclohexene dioxide was irradiated with a medium-pressure Hg arc lamp to give a tack-free film in 1-2 s.

IT 70084-24-1P 75482-18-7P 106875-86-9P
 119280-67-0P 127279-74-7P 127279-76-9P

127279-77-0P 127279-79-2P 127279-81-6P

127279-84-9P 127279-88-3P 127331-45-7P

RL: IMF (Industrial manufacture); PREP (Preparation)

(manufacture of, for photopolymn. catalysts)

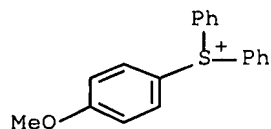
RN 70084-24-1 HCAPLUS

CN Sulfonium, (4-methoxyphenyl)diphenyl-, hexafluoroarsenate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 70084-23-0

CMF C19 H17 O S

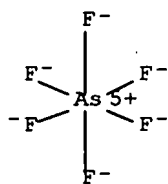


CM 2

CRN 16973-45-8

CMF As F6

CCI CCS



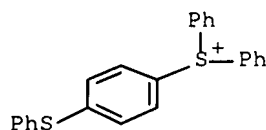
RN 75482-18-7 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47480-44-4

CMF C24 H19 S2

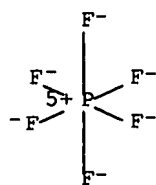


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



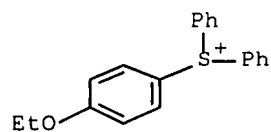
RN 106875-86-9 HCAPLUS

CN Sulfonium, (4-ethoxyphenyl)diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 106875-85-8

CMF C20 H19 O S

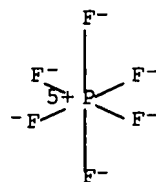


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

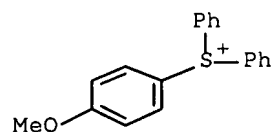


RN 119280-67-0 HCAPLUS

CN Sulfonium, (4-methoxyphenyl)diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

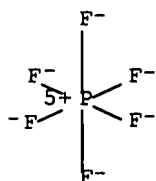
CM 1

CRN 70084-23-0
CMF C19 H17 O S



CM 2

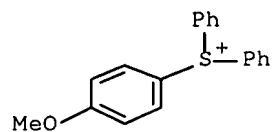
CRN 16919-18-9
CMF F6 P
CCI CCS



RN 127279-74-7 HCAPLUS
CN Sulfonium, (4-methoxyphenyl)diphenyl-, (OC-6-11)-hexafluoroantimonate(1-)
(9CI) (CA INDEX NAME)

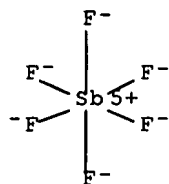
CM 1

CRN 70084-23-0
CMF C19 H17 O S



CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



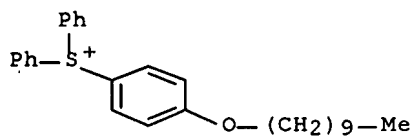
RN 127279-76-9 HCAPLUS

CN Sulfonium, [4-(decyloxy)phenyl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 127279-75-8

CMF C28 H35 O S

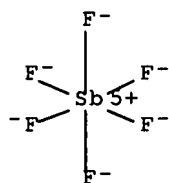


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



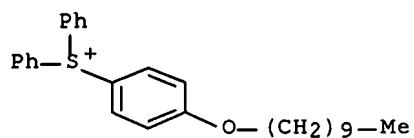
RN 127279-77-0 HCAPLUS

CN Sulfonium, [4-(decyloxy)phenyl]diphenyl-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 127279-75-8

CMF C28 H35 O S

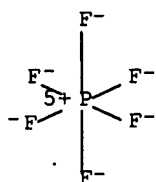


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



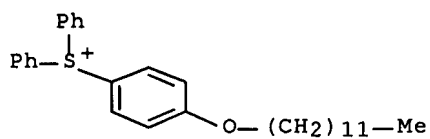
RN 127279-79-2 HCAPLUS

CN Sulfonium, [4-(dodecyloxy)phenyl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 127279-78-1

CMF C30 H39 O S

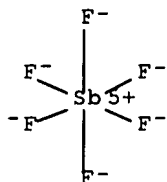


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



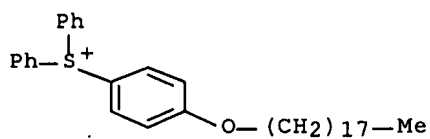
RN 127279-81-6 HCAPLUS

CN Sulfonium, [4-(octadecyloxy)phenyl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 127279-80-5

CMF C36 H51 O S

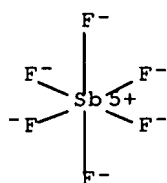


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



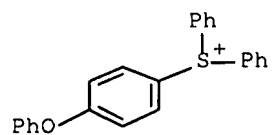
RN 127279-84-9 HCAPLUS

CN Sulfonium, (4-phenoxyphenyl)diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 82617-07-0

CMF C24 H19 O S

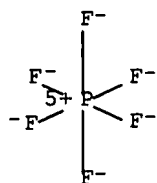


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



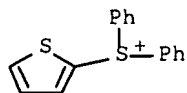
RN 127279-88-3 HCAPLUS

CN Sulfonium, diphenyl-2-thienyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 127279-87-2

CMF C16 H13 S2

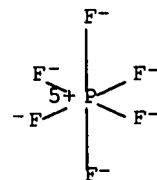


CM 2

CRN 16919-18-9

CMF F6 P

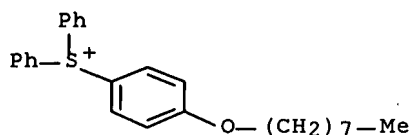
CCI CCS



RN 127331-45-7 HCAPLUS
 CN Sulfonium, [4-(octyloxy)phenyl]diphenyl-, hexafluorophosphate(1-) (9CI)
 (CA INDEX NAME)

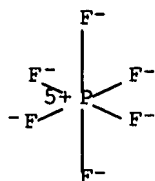
CM 1

CRN 127331-44-6
 CMF C26 H31 O S



CM 2

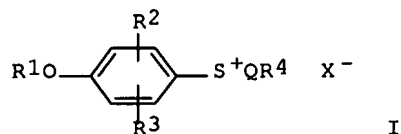
CRN 16919-18-9
 CMF F6 P
 CCI CCS



L33 ANSWER 46 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1992:236826 HCAPLUS Full-text
 DOCUMENT NUMBER: 116:236826
 TITLE: UV-curable resin compositions and cured products
 INVENTOR(S): Endo, Takeshi; Yokoshima, Minoru; Hamatsu, Tomio
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan; Sanshin Chemical Industry Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04011609	A	19920116	JP 1990-113995	19900427 <--
PRIORITY APPLN. INFO.:			JP 1990-113995	19900427 <--
OTHER SOURCE(S):	MARPAT	116:236826		

ED Entered STN: 13 Jun 1992
GI



AB Rapid-curing title compns. giving products, e.g. coatings, adhesives, with good adhesion and solvent resistance, comprise (meth)acrylates and/or epoxy resins, compds. containing ≥ 2 vinyl ether groups, sulfonium salts I [R1 = H, alkyl, COY; R2-3 = H, halo, alkyl; Q, R4 = (un)substituted alkyl; Y = (un)substituted alkyl, alkoxy, Ph, OPh; X = SbF6, PF6, AsF6, BF4], and optionally photoinitiators. Thus, treating PTMG 700, neopentyl glycol 67.6, and IPDI 444.6 parts at 80° for 10 h and subsequent reaction with 244 parts 2-hydroxyethyl acrylate in presence of methoquinone gave 1456 parts urethane acrylate, 40 parts of which was blended with triethylene glycol divinyl ether (II) 60, p-nitrobenzyl-(4-hydroxyphenyl)methylsulfonium hexafluoroantimonate (III) 0.15, and Irgacure 184 2.0 parts to give title composition A printed paper was coated with the composition and irradiated by UV to form a hard coating by 69 mJ/cm² irradiation, vs. 138 for a control containing tripropylene glycol diacrylate instead of II and III.

IT 135691-30-4P

RL: PREP (Preparation)

(preparation of, UV-curable acrylate or epoxy resin compns. containing, fast-curing)

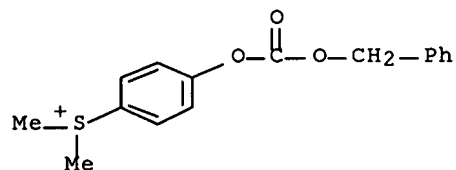
RN 135691-30-4 HCAPLUS

CN Sulfonium, dimethyl[4-[(phenylmethoxy)carbonyl]oxy]phenyl]-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 107147-00-2

CMF C16 H17 O3 S

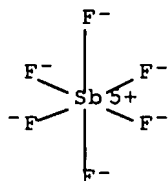


CM 2

CRN 17111-95-4

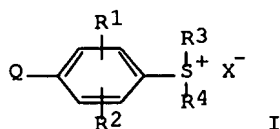
CMF F6 Sb

CCI CCS



L33 ANSWER 47 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1992:41071 HCAPLUS Full-text
 DOCUMENT NUMBER: 116:41071
 TITLE: Preparation of dialkylphenylsulfonium salts as
 initiators for hardening of light- or heat-hardening
 compositions
 INVENTOR(S): Hamatsu, Tomio; Yamamoto, Yoshinari; Koizumi, Tatsuya
 PATENT ASSIGNEE(S): Sanshin Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03200761	A	19910902	JP 1990-289908	19901025 <--
JP 2797025	B2	19980917		
PRIORITY APPLN. INFO.:			JP 1989-285670	A1 19891031 <--
OTHER SOURCE(S):	MARPAT 116:41071			
ED Entered STN:	08 Feb 1992			
GI				



AB The title compds. (I; Q = MeO₂C, MeCO, PhCH₂O₂C, Me₂N; R₁, R₂ = H, Cl-4 alkyl; R₃, R₄ = Cl-4 alkyl; X = SbF₆, PF₆, AsF₆, BF₄), useful as initiators for hardening an epoxy resin composition, are prepared by esterification of I (Q = OH) with R₅Z (R₅ = MeO₂C, MeCO, PhCH₂O₂C; Z = halo) in the presence of a tertiary amine in MeCN and/or an acetate ester. Thus, 0.016 mol Et₃N was added to a solution of I (Q = HO, R₁-R₄ = Me, X = SbF₆) in MeCN at ≤10° followed by 0.016 mol MeO₂CCl dropwise at ≤5° and then the mixture was stirred 3 h to give 93.0% I (Q = MeO₂C; R₁-R₄ = Me, X = SbF₆). A total of 8 I were prepared

IT **135691-30-4P 135691-31-5P 135713-23-4P**
138170-84-0P 138170-85-1P 138170-87-3P
138170-88-4P 138170-90-8P
 RL: SPN (Synthetic preparation); **PREP (Preparation)**

Serial No.:10/562,444

(preparation of, as hardening initiator for epoxy resin)

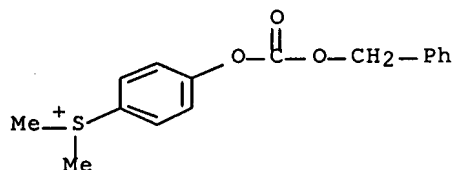
RN 135691-30-4 HCAPLUS

CN Sulfonium, dimethyl[4-[[(phenylmethoxy)carbonyl]oxy]phenyl]-,
(OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 107147-00-2

CMF C16 H17 O3 S

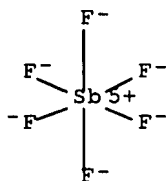


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



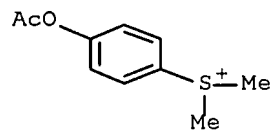
RN 135691-31-5 HCAPLUS

CN Sulfonium, [4-(acetyloxy)phenyl]dimethyl-, (OC-6-11)-
hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

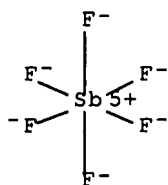
CRN 108965-55-5

CMF C10 H13 O2 S



CM 2

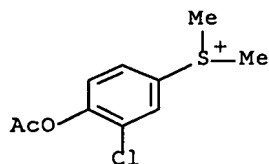
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 135713-23-4 HCAPLUS
CN Sulfonium, [4-(acetyloxy)-3-chlorophenyl]dimethyl-, (OC-6-11)-
hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

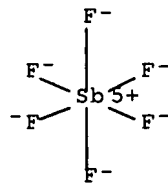
CM 1

CRN 135691-32-6
CMF C10 H12 Cl O2 S



CM 2

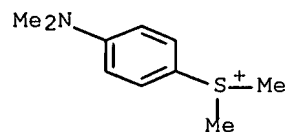
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 138170-84-0 HCAPLUS
CN Sulfonium, [4-(dimethylamino)phenyl]dimethyl-, (OC-6-11)-
hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

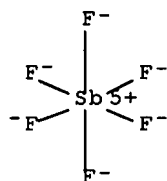
CM 1

CRN 138170-83-9
CMF C10 H16 N S



CM 2

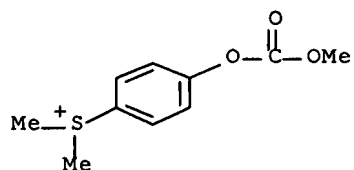
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 138170-85-1 HCAPLUS
CN Sulfonium, [4-[(methoxycarbonyl)oxy]phenyl]dimethyl-, (OC-6-11)-
hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

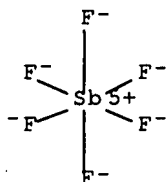
CM 1

CRN 135691-42-8
CMF C10 H13 O3 S



CM 2

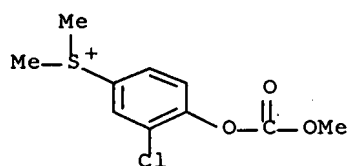
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 138170-87-3 HCAPLUS
 CN Sulfonium, [3-chloro-4-[(methoxycarbonyl)oxy]phenyl]dimethyl-,
 (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

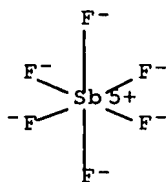
CM 1

CRN 138170-86-2
 CMF C10 H12 Cl O3 S



CM 2

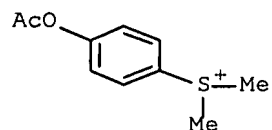
CRN 17111-95-4
 CMF F6 Sb
 CCI CCS



RN 138170-88-4 HCAPLUS
 CN Sulfonium, [4-(acetyloxy)phenyl]dimethyl-, hexafluorophosphate(1-) (9CI)
 (CA INDEX NAME)

CM 1

CRN 108965-55-5
 CMF C10 H13 O2 S

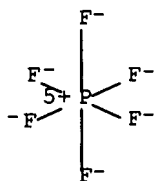


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



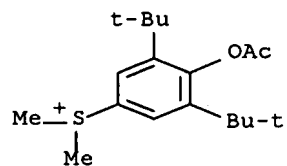
RN 138170-90-8 HCAPLUS

CN Sulfonium, [4-(acetyloxy)-3,5-bis(1,1-dimethylethyl)phenyl]dimethyl-,
(OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 138170-89-5

CMF C18 H29 O2 S

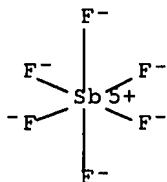


CM 2

CRN 17111-95-4

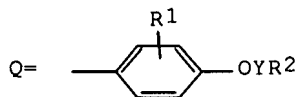
CMF F6 Sb

CCI CCS



L33 ANSWER 48 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1991:471095 HCAPLUS Full-text
 DOCUMENT NUMBER: 115:71095
 TITLE: Preparation of (acyloxyphenyl)sulfonium salts as photoinitiated cationic polymerization initiators
 INVENTOR(S): Schwalm, Reinhold
 PATENT ASSIGNEE(S): BASF A.-G., Germany
 SOURCE: Eur. Pat. Appl., 12 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: **Patent**
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 410263	A1	19910130	EP 1990-113601	19900716 <--
EP 410263	B1	19940216		
R: BE, CH, DE, FR, GB, LI, NL				
DE 3924298	A1	19910207	DE 1989-3924298	19890722 <--
JP 03148256	A	19910625	JP 1990-170403	19900629 <--
US 5159088	A	19921027	US 1990-551779	19900712 <--
PRIORITY APPLN. INFO.:			DE 1989-3924298	A 19890722 <--
OTHER SOURCE(S): CASREACT 115:71095; MARPAT 115:71095				
ED Entered STN: 23 Aug 1991				
GI				



AB R3-xS+R3x A- [A- = nonnucleophilic ion; R = (cyclo)alkyl, (un)substituted aryl; R2 = atoms to complete a ring including S; R3 = Ph group Q; R1 = H, alkyl, alkoxy, halo, NO2; R2 = alkyl or (hetero)aryl containing > 6 C-atoms; Y = bond, CO, SO2, CO2, CONH, etc.; X = 1-3], which undergo photolysis to produce an acid, were prepared. Thus, 4-HOC6H4S+Me2 AsF6- was condensed with R2COCl [R2 = 3-(1-pyrenylpropyl)] to give 4-(R2CO2)C6H4S+Me2 AsF6- (R2 as given) (II). Polymerization of styrene in CCl4 containing 0.5 parts II was effected after 15 min irradiation at 365 nm.

IT **134993-71-8P 135025-80-8P**
 RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (preparation of, as photoinitiated cationic polymerization initiator)

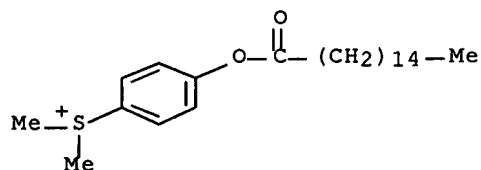
RN 134993-71-8 HCAPLUS

CN Sulfonium, dimethyl[4-[(1-oxohexadecyl)oxy]phenyl]-, hexafluoroarsenate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 122533-38-4

CMF C24 H41 O2 S

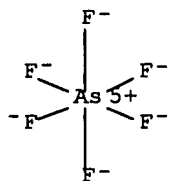


CM 2

CRN 16973-45-8

CMF As F6

CCI CCS



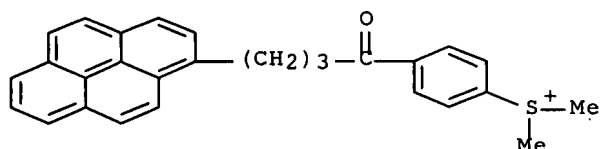
RN 135025-80-8 HCAPLUS

CN Sulfonium, dimethyl[4-[1-oxo-4-(1-pyrenyl)butyl]phenyl]-, hexafluoroarsenate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 135025-79-5

CMF C28 H25 O S

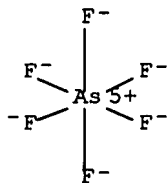


CM 2

CRN 16973-45-8

CMF As F6

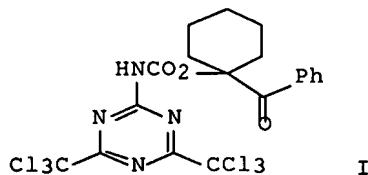
CCI CCS



L33 ANSWER 49 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1991:247970 HCAPLUS Full-text
 DOCUMENT NUMBER: 114:247970
 TITLE: (Halomethyl)-1,3,5-triazine photopolymerization
 initiators
 INVENTOR(S): Rossman, Mitchell A.; Bonham, James A.
 PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA
 SOURCE: Eur. Pat. Appl., 17 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 361682	A1	19900404	EP 1989-308687	19890829 <--
EP 361682	B1	19960327		
R: BE, DE, FR, GB, IT, NL				
JP 02115176	A	19900427	JP 1989-231342	19890906 <--
KR 137465	B1	19980601	KR 1989-12945	19890906 <--
US 5153323	A	19921006	US 1991-680025	19910328 <--
PRIORITY APPLN. INFO.:			US 1988-241339	A 19880907 <--
			US 1989-441181	B1 19891122 <--

OTHER SOURCE(S): MARPAT 114:247970
 ED Entered STN: 28 Jun 1991
 GI



AB Photopolymn. initiators, useful in printing, duplicating, copying, and other imaging systems (no data), comprise a 1,3,5-triazine compound having >1 halomethyl group on a C atom of the triazine ring and having >1 photoinitiator

mobility attached to another C atom of the triazine ring. These initiators have good sensitivity in the UV and visible range of the spectrum. Thus, 1-(benzoyl)cyclohexanol was condensed with 2,4-bis(trichloromethyl)-6-isocyanato-1,3,5-triazine, forming I, which had m.p. 115-119° and μ_{\max} 236 nm.

IT 132219-23-9P

RL: IMF (Industrial manufacture); **PREP (Preparation)**
(manufacture of, as photopolymer. initiator)

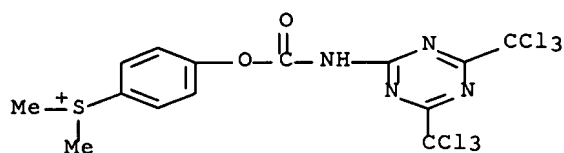
RN 132219-23-9 HCAPLUS

CN Sulfonium, [4-[[[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]amino]carbonyl]oxy]phenyl]dimethyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 132219-22-8

CMF C14 H11 Cl6 N4 O2 S

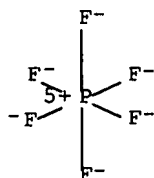


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 50 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:632255 HCAPLUS Full-text

DOCUMENT NUMBER: 113:232255

TITLE: Tethered sulfonium salt photoinitiators for free radical polymerization

INVENTOR(S): Wright, Bradford B.; Devoe, Robert J.

PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA

SOURCE: Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

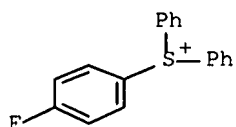
DOCUMENT TYPE: **Patent**

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 375160	A2	19900627	EP 1989-312106	19891122 <--
EP 375160	A3	19910410		
EP 375160	B1	19950308		
R: CH, DE, FR, GB, IT, LI				
US 4954416	A	19900904	US 1988-287909	19881221 <--
CA 2003569	A1	19900621	CA 1989-2003569	19891122 <--
JP 02242803	A	19900927	JP 1989-330937	19891220 <--
PRIORITY APPLN. INFO.:			US 1988-287909	A 19881221 <--
OTHER SOURCE(S): MARPAT 113:232255				
ED Entered STN: 22 Dec 1990				
AB	An electron donor and/or sensitizer covalently bonded to a triarylsulfonium salt has a synergistic effect on the photosensitization of free radical initiation of polymerizable compns., compared to that of an unbonded compound Dissolving 20 mg [4-(2-aminoethyl)phenyl]diphenylsulfo nium hexafluorophosphate (I) in a mixture of water, MeCN, bis[4-(dimethylamino)benzylidene]acetone, and trimethylolpropane triacrylate gave a composition which showed gel time in UV light 5.5 min, vs. 18.8 with triphenylsulfonium hexafluorophosphate and Et3N instead of I.			
IT	106888-36-2P 130878-99-8P 130879-01-5P 130879-03-7P 130879-05-9P 130879-07-1P 130879-09-3P 130879-11-7P 130879-13-9P 130879-15-1P 130879-17-3P 130879-19-5P 130879-21-9P 130879-23-1P			
	RL: PREP (Preparation) (preparation of, as photopolymer. initiator for vinyl monomers)			
RN	106888-36-2 HCAPLUS			
CN	Sulfonium, (4-fluorophenyl)diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)			
CM	1			
CRN	70084-25-2			
CMF	C18 H14 F S			

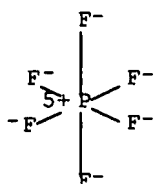


CM 2

CRN 16919-18-9

CMF F6 P

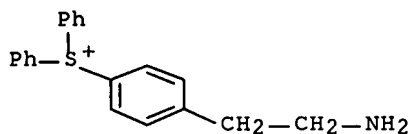
CCI CCS



RN 130878-99-8 HCAPLUS
 CN Sulfonium, [4-(2-aminoethyl)phenyl]diphenyl-, hexafluorophosphate(1-)
 (9CI) (CA INDEX NAME)

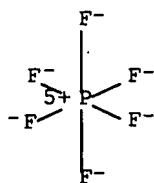
CM 1

CRN 130878-98-7
 CMF C20 H20 N S



CM 2

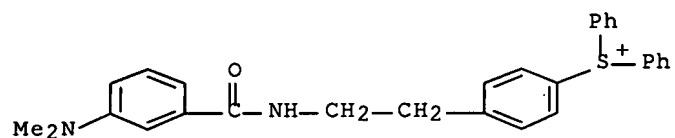
CRN 16919-18-9
 CMF F6 P
 CCI CCS



RN 130879-01-5 HCAPLUS
 CN Sulfonium, [4-[2-[[3-(dimethylamino)benzoyl]amino]ethyl]phenyl]diphenyl-,
 hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 130879-00-4
 CMF C29 H29 N2 O S

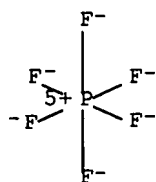


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



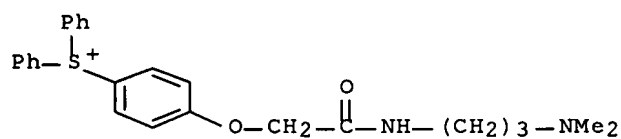
RN 130879-03-7 HCAPLUS

CN Sulfonium, [4-[2-[[3-(dimethylamino)propyl]amino]-2-oxoethoxy]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 130879-02-6

CMF C25 H29 N2 O2 S

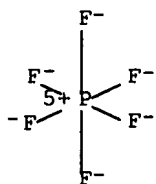


CM 2

CRN 16919-18-9

CMF F6 P

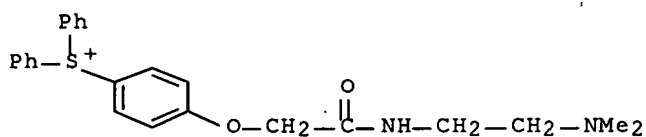
CCI CCS



RN 130879-05-9 HCAPLUS
 CN Sulfonium, [4-[2-[[2-(dimethylamino)ethyl]amino]-2-oxoethoxy]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

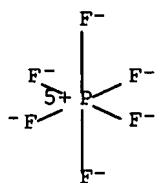
CM 1

CRN 130879-04-8
 CMF C24 H27 N2 O2 S



CM 2

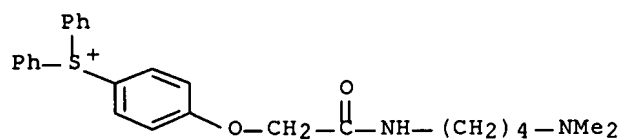
CRN 16919-18-9
 CMF F6 P
 CCI CCS



RN 130879-07-1 HCAPLUS
 CN Sulfonium, [4-[2-[[4-(dimethylamino)butyl]amino]-2-oxoethoxy]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 130879-06-0
 CMF C26 H31 N2 O2 S

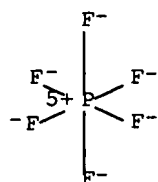


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



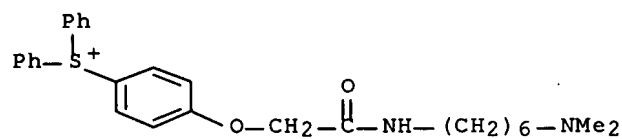
RN 130879-09-3 HCAPLUS

CN Sulfonium, [4-[2-[[6-(dimethylamino)hexyl]amino]-2-oxoethoxy]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 130879-08-2

CMF C28 H35 N2 O2 S

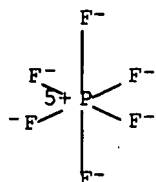


CM 2

CRN 16919-18-9

CMF F6 P

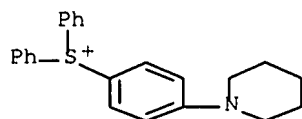
CCI CCS



RN 130879-11-7 HCAPLUS
 CN Sulfonium, diphenyl[4-(1-piperidiny)phenyl]-, hexafluorophosphate(1-)
 (9CI) (CA INDEX NAME)

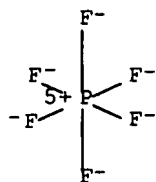
CM 1

CRN 130879-10-6
 CMF C23 H24 N S



CM 2

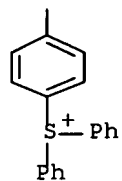
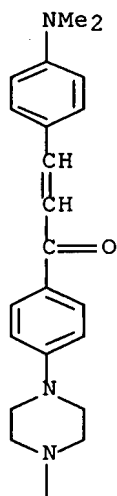
CRN 16919-18-9
 CMF F6 P
 CCI CCS



RN 130879-13-9 HCAPLUS
 CN Sulfonium, [4-[4-[4-[3-[4-(dimethylamino)phenyl]-1-oxo-2-propenyl]phenyl]-1-piperaziny]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 130879-12-8
 CMF C39 H38 N3 O S

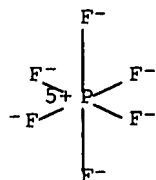


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

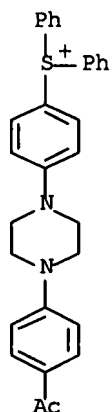


RN 130879-15-1 HCAPLUS

CN Sulfonium, [4-[4-(4-acetylphenyl)-1-piperazinyl]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

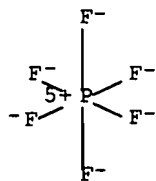
CM 1

CRN 130879-14-0
CMF C30 H29 N2 O S



CM 2

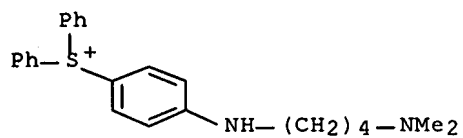
CRN 16919-18-9
CMF F6 P
CCI CCS



RN 130879-17-3 HCAPLUS
CN Sulfonium, [4-[[4-(dimethylamino)butyl]amino]phenyl]diphenyl-,
hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 130879-16-2
CMF C24 H29 N2 S

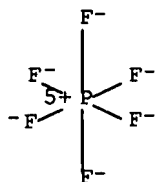


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



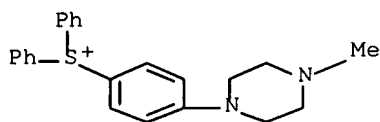
RN 130879-19-5 HCAPLUS

CN Sulfonium, [4-(4-methyl-1-piperazinyl)phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 130879-18-4

CMF C23 H25 N2 S

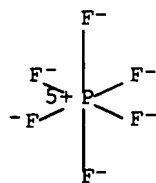


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



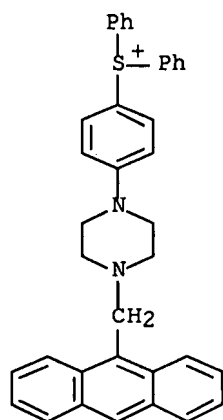
RN 130879-21-9 HCAPLUS

CN Sulfonium, [4-[4-(9-anthracenylmethyl)-1-piperazinyl]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 130879-20-8

CMF C37 H33 N2 S

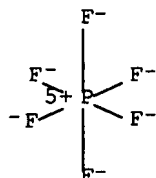


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



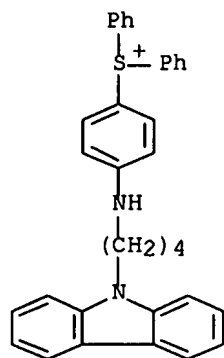
RN 130879-23-1 HCAPLUS

CN Sulfonium, [4-[[4-(9H-carbazol-9-yl)butyl]amino]phenyl]diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 130879-22-0

CMF C34 H31 N2 S

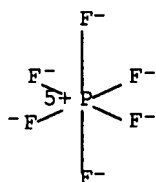


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 51 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:612726 HCAPLUS Full-text

DOCUMENT NUMBER: 113:212726

TITLE: New synthesis of aryl-substituted sulfonium salts and their applications in photoinitiated cationic polymerization

AUTHOR(S): Akhtar, S. R.; Crivello, J. V.; Lee, J. L.; Schmitt, M. L.

CORPORATE SOURCE: Dep. Chem., Rensselaer Polytech. Inst., Troy, NY, 12180, USA

SOURCE: Chemistry of Materials (1990), 2(6), 732-7
CODEN: CMATEX; ISSN: 0897-4756

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 08 Dec 1990

AB Catalysts for photochem. polymerization and crosslinking were prepared by a 1-pot method in which dialkyl and diaryl sulfoxides were condensed with aromatic compds. substituted with electron-donating substituents in the presence of P2O5/MeSO3H. All of the prepared aryl-substituted sulfonium salts were photoactive and initiated rapid and exothermic polymerization when irradiated in the presence of typical cationically polymerizable monomers such as epoxides, α -methylstyrene, and vinyl ethers. In polymerization of 1,2-epoxydecane and dodecyl vinyl ether, photopolymers were not successful using Ph3S+SbF6- due to the insoly. of the photoinitiator in the monomers. Sulfonium salts containing long alkoxy substituents were especially attractive as

photoinitiators because of their excellent UV spectral absorption characteristics, their solubility in nonpolar monomers and polymers, and their high efficiency in photoinitiated cationic polymerization. The preparation and characterization of the sulfonium compounds are described and discussed.

IT 66482-56-2P 71449-78-0P 106875-86-9P

127279-74-7P 127279-76-9P 127279-79-2P

127279-81-6P 127279-83-8P 127279-84-9P

127279-86-1P 127279-88-3P 127279-89-4P

127331-45-7P 129570-30-5P

RL: SPN (Synthetic preparation); **PREP (Preparation)**

(preparation and characterization of, as photochem. polymerization catalysts)

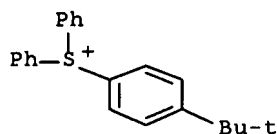
RN 66482-56-2 HCAPLUS

CN Sulfonium, [4-(1,1-dimethylethyl)phenyl]diphenyl-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 66482-54-0

CMF C22 H23 S

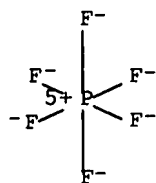


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



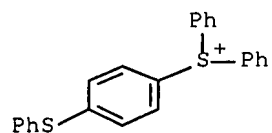
RN 71449-78-0 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, (OC-6-11)-
hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47480-44-4

CMF C24 H19 S2

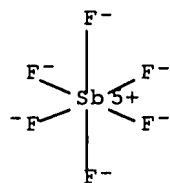


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



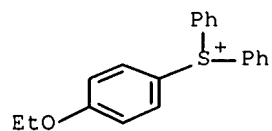
RN 106875-86-9 HCAPLUS

CN Sulfonium, (4-ethoxyphenyl)diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 106875-85-8

CMF C20 H19 O S

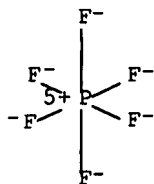


CM 2

CRN 16919-18-9

CMF F6 P

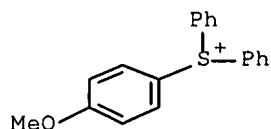
CCI CCS



RN 127279-74-7 HCAPLUS
 CN Sulfonium, (4-methoxyphenyl)diphenyl-, (OC-6-11)-hexafluoroantimonate(1-)
 (9CI) (CA INDEX NAME)

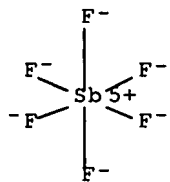
CM 1

CRN 70084-23-0
 CMF C19 H17 O S



CM 2

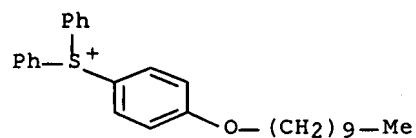
CRN 17111-95-4
 CMF F6 Sb
 CCI CCS



RN 127279-76-9 HCAPLUS
 CN Sulfonium, [4-(decyloxy)phenyl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-)
) (9CI) (CA INDEX NAME)

CM 1

CRN 127279-75-8
 CMF C28 H35 O S

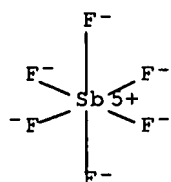


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



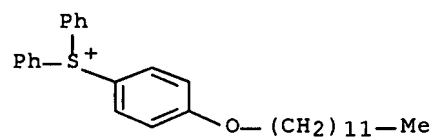
RN 127279-79-2 HCAPLUS

CN Sulfonium, [4-(dodecyloxy)phenyl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 127279-78-1

CMF C30 H39 O S

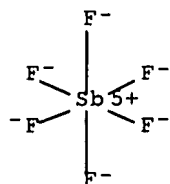


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



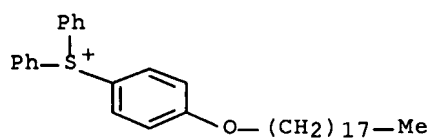
RN 127279-81-6 HCAPLUS

CN Sulfonium, [4-(octadecyloxy)phenyl]diphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 127279-80-5

CMF C36 H51 O S

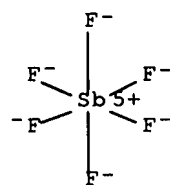


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



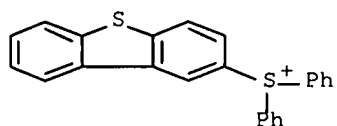
RN 127279-83-8 HCAPLUS

CN Sulfonium, 2-dibenzothienyldiphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 127279-82-7

CMF C24 H17 S2

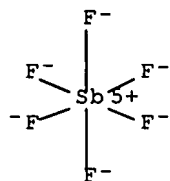


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



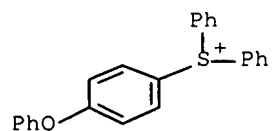
RN 127279-84-9 HCAPLUS

CN Sulfonium, (4-phenoxyphenyl)diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 82617-07-0

CMF C24 H19 O S

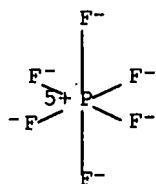


CM 2

CRN 16919-18-9

CMF F6 P

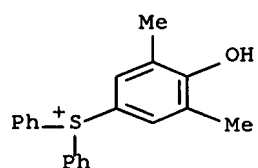
CCI CCS



RN 127279-86-1 HCAPLUS
 CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)diphenyl-, hexafluorophosphate(1-)
) (9CI) (CA INDEX NAME)

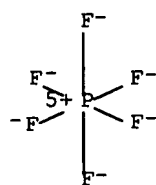
CM 1

CRN 127279-85-0
 CMF C20 H19 O S



CM 2

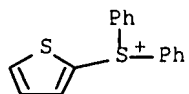
CRN 16919-18-9
 CMF F6 P
 CCI CCS



RN 127279-88-3 HCAPLUS
 CN Sulfonium, diphenyl-2-thienyl-, hexafluorophosphate(1-) (9CI) (CA INDEX
 NAME)

CM 1

CRN 127279-87-2
 CMF C16 H13 S2

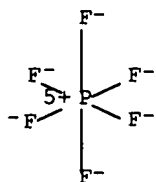


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



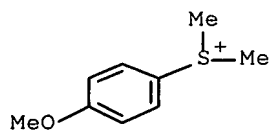
RN 127279-89-4 HCAPLUS

CN Sulfonium, (4-methoxyphenyl)dimethyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 45946-58-5

CMF C9 H13 O S

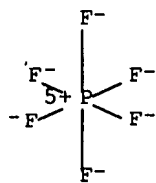


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



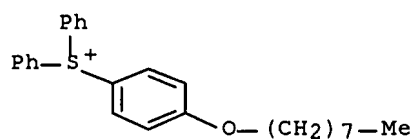
RN 127331-45-7 HCAPLUS

CN Sulfonium, [4-(octyloxy)phenyl]diphenyl-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 127331-44-6

CMF C26 H31 O S

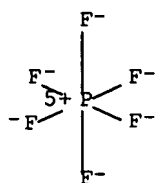


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



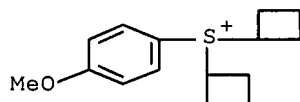
RN 129570-30-5 HCAPLUS

CN Sulfonium, dicyclobutyl(4-methoxyphenyl)-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 129570-29-2

CMF C15 H21 O S

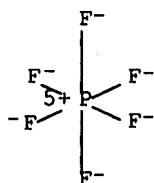


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L33 ANSWER 52 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:119476 HCAPLUS Full-text

DOCUMENT NUMBER: 112:119476

TITLE: SUCCESS: a novel concept regarding photoactive compounds

AUTHOR(S): Schwalm, R.

CORPORATE SOURCE: BASF A.-G., Ludwigshafen, D-6700, Fed. Rep. Ger.

SOURCE: Polymeric Materials Science and Engineering (1989), 61, 278-82

CODEN: PMSEDG; ISSN: 0743-0515

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 31 Mar 1990

AB Sulfonium Compds. Containing Expellable Sophisticated Sidegroups (SUCCESS), which revert completely to phenolic products, were prepared and their applications to cationic polymerization and photoresists were described. The complete synthesis of di-Me 4-tert-butoxycarbonyloxyphenylsulfonium hexafluoroarsenate was given.

IT 120397-52-6P, Dimethyl-4-t-butoxycarbonyloxyphenylsulfonium hexafluoroarsenate

RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of, with expellable sophisticated sidegroups)

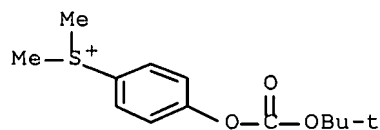
RN 120397-52-6 HCAPLUS

CN Sulfonium, [4-[[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl]dimethyl-, hexafluoroarsenate(1-) (9CI) (CA INDEX NAME)

CM 1

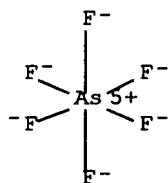
CRN 117417-19-3

CMF C13 H19 O3 S



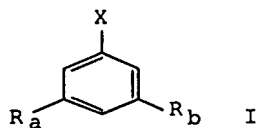
CM 2

CRN 16973-45-8
 CMF As F6
 CCI CCS



L33 ANSWER 53 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1989:616075 HCAPLUS Full-text
 DOCUMENT NUMBER: 111:216075
 TITLE: Cationically curable compositions containing phenol derivatives and formaldehyde or other aldehydes or their precursors
 INVENTOR(S): Guthrie, John; Woods, John; Kneafsey, Brendan J.; MacAogain, Conor
 PATENT ASSIGNEE(S): Loctite (Ireland) Ltd., Ire.
 SOURCE: Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 311371	A2	19890412	EP 1988-309271	19881005 <--
EP 311371	A3	19900620		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AU 8823419	A	19890406	AU 1988-23419	19881005 <--
AU 605916	B2	19910124		
JP 01139609	A	19890601	JP 1988-251728	19881005 <--
CA 1316626	C	19930420	CA 1988-579381	19881005 <--
PRIORITY APPLN. INFO.:			IE 1987-2653	A 19871005 <--
ED Entered STN: 09 Dec 1989				
GI				



AB The compns., cationically curable to colored products, comprise (A) phenol derivs. comprising phenoxy silyl ethers [I; X = OH, OSiR1R2R3, R1, R2 = H, Cl-

5 hydrocarbyl, aryl, R3 = H, (halogenated) hydrocarbyl; Ra, Rb = H, o- and p-activating groups for aromatic electrophilic substitution; Ra, Rb ≠ NH2]; phenol ethers (I; Ra = OR4; Rb = OR5; X = H, OH or OR6; R4-R6 = hydrocarbyl); hydroquinone ethers p-R4OC6H4OR5 (II; substituted phenol ethers (m-R4OC6H4O)2R7, (p-R4OC6H4O)2R7, and [3,5- (R5O) (R5O)C6H3O]2R7 where R7 = CONHR8NHCO, COR8CO, R8 = divalent (cyclo)aliphatic or aromatic group; , and phenolic oligomers (3,5-XRaC6H3)nR9 where R9 is an n-valent radical and n = 2-4; (B) aldehydes comprising HCHO, monoaldehydes, and polyfunctional aldehydes (PA); and (C) latent acidic catalysts (producing acids on exposure to radiation); when A is a phenol ether, B is HCHO or PA; when A is II, B is HCHO. A composition of 1.10 g resorcinol, 1.00 mL 40% aqueous HCHO and 0.16 g 50% Ph3S+ SbF6- aqueous solution was coated on a glass slide and irradiated with UV of 200 W/in. for 30 s to give a pink cured product with good solvent resistance.

IT **57840-38-7P**, Triphenylsulfonium hexafluoroantimonate

RL: **PREP (Preparation)**

(preparation of, as catalysts for preparing aldehyde-phenol derivative copolymers)

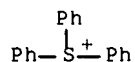
RN 57840-38-7 HCAPLUS

CN Sulfonium, triphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 18393-55-0

CMF C18 H15 S

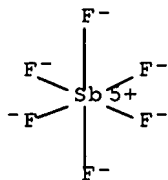


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



L33 ANSWER 54 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:232266 HCAPLUS Full-text

DOCUMENT NUMBER: 110:232266

TITLE: Sulfonium salts bearing acid-labile groups as initiators for photopolymerization

INVENTOR(S): Schwalm, Reinhold; Boettcher, Andreas

PATENT ASSIGNEE(S): BASF A.-G., Fed. Rep. Ger.
 SOURCE: Eur. Pat. Appl., 7 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: **Patent**
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 297442	A1	19890104	EP 1988-110061	19880624 <--
EP 297442	B1	19910227		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
DE 3721740	A1	19890112	DE 1987-3721740	19870701 <--
AT 61045	T	19910315	AT 1988-110061	19880624 <--
CA 1333400	C	19941206	CA 1988-570472	19880627 <--
DK 8803623	A	19890102	DK 1988-3623	19880630 <--
US 5191124	A	19930302	US 1988-214011	19880630 <--
AU 8818613	A	19890105	AU 1988-18613	19880701 <--
AU 607780	B2	19910314		
JP 01026550	A	19890127	JP 1988-162771	19880701 <--
JP 2635374	B2	19970730		
PRIORITY APPLN. INFO.:			DE 1987-3721740	A 19870701 <--
			EP 1988-110061	A 19880624 <--

OTHER SOURCE(S): MARPAT 110:232266

ED Entered STN: 25 Jun 1989

AB The sulfonium salts R1(R2)(R3)S+ X- [R1-R3 = aliphatic or aromatic groups, optionally containing hetero atoms (or 2 can form a ring), 1 of which is bonded, optionally via acid-labile groups, to other sulfonium groups; X = non-nucleophilic anion] are sensitive over broad ranges of the electromagnetic spectrum and change their solubility markedly upon irradiation. The reaction of PhOH with DMSO and HCl in MeOH followed by reaction with KAsF6 gave 4-HOC6H4SMe2+ AsF6-, which was converted with tert-BuOK and (tert-BuO)2CO to 4-tert-BuOCO2C6H4SMe2+ AsF6- (I). A 25% MeOCH2CH2OAc solution of poly(tert-Bu methacrylate) containing 20 phr I was spin-coated on a Si wafer, dried at 90°, illuminated through a quartz mask, baked 1 min at 120°, and developed with an alkaline solution, by which process the illuminated areas were developed completely.

IT **120397-55-9P**, (4-Hydroxyphenyl)dimethylsulfonium hexafluoroarsenate

RL: RCT (Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)

(preparation and esterification of)

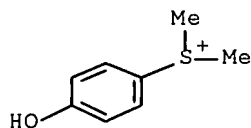
RN 120397-55-9 HCAPLUS

CN Sulfonium, (4-hydroxyphenyl)dimethyl-, hexafluoroarsenate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 45797-54-4

CMF C8 H11 O S

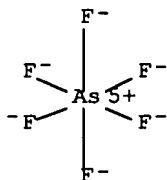


CM 2

CRN 16973-45-8

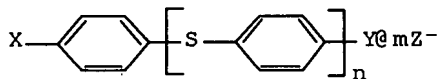
CMF As F6

CCI CCS

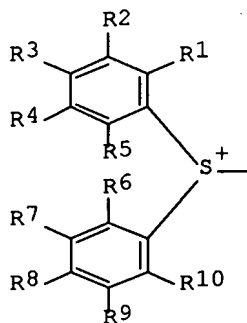


L33 ANSWER 55 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1988:168578 HCAPLUS Full-text
 DOCUMENT NUMBER: 108:168578
 TITLE: Energy beam-curable composition
 INVENTOR(S): Tsuchiya, Hiroshi; Morio, Kazuhiko; Murase, Hisashi;
 Ohkawa, Kazuo
 PATENT ASSIGNEE(S): Asahi Denka Kogyo K. K., Japan
 SOURCE: Eur. Pat. Appl., 12 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 240582	A1	19871014	EP 1986-104743	19860407 <--
EP 240582	B1	19900704		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 54322	T	19900715	AT 1986-104743	19860407 <--
PRIORITY APPLN. INFO.:			EP 1986-104743	A 19860407 <--
ED Entered STN: 13 May 1988				
GI				



I



II

AB The title composition, with low odor and useful for coatings, contain a cationically polymerizable compound and the onium salt of Lewis acid compound I (X = sulfonio group II; R1-10 = H, halogen, nitro, alkoxy, C1-18 aliphatic or C6-18 (un)substituted Ph, phenoxy, or thiophenoxy; ≥1 of R1-10 is C1-8 aliphatic having ≥1 OH or C3-19 aliphatic having OCH₂CH₂O; Y = II, H, halogen, nitro, alkoxy, C1-18 aliphatic, C6-18 (un)substituted Ph or thiophenoxy, n = 1-3, m = 1-2; Z = MQ-1 or MQ1-1OH, M = B, P, As, Sb; Q = halogen, l = 4-6). Thus, 5.77 parts 33% 4,4'-bis[bis[p-(2-hydroxyethoxy)phenyl]sulfonio]phenyl sulfide bishexafluorophosphate in propylene carbonate was added to 80:20 (parts) Celloxide 2021 (alicyclic epoxy resin)-butanediol diglycidyl ether (Dy-002) mixture, applied at 10-μ onto an Al panel, and irradiated with a Hg lamp to give a coating exhibiting residue <10 ppm after extraction for 30 min at 60° in 20% EtOH, 30 min. in water at 95°, 60 min at 25° in heptane, or 30 min at 60° in 4% acetic acid.

IT 57835-99-1P 74227-35-3P 75482-18-7P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**
(**Preparation**); RACT (Reactant or reagent)
(preparation and photodegrdn. of)

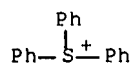
RN 57835-99-1 HCAPLUS

CN Sulfonium, triphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 18393-55-0

CMF C18 H15 S

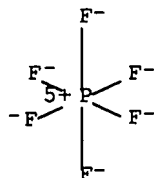


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

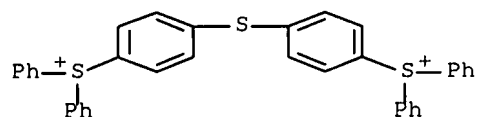


RN 74227-35-3 HCAPLUS

CN Sulfonium, (thiodi-4,1-phenylene)bis[diphenyl-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

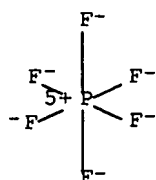
CM 1

CRN 74227-34-2
CMF C36 H28 S3



CM 2

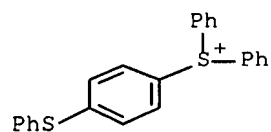
CRN 16919-18-9
CMF F6 P
CCI CCS



RN 75482-18-7 HCAPLUS
CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

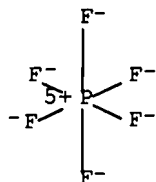
CM 1

CRN 47480-44-4
CMF C24 H19 S2



CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



L33 ANSWER 56 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:101868 HCAPLUS Full-text

DOCUMENT NUMBER: 106:101868

TITLE: Aromatic sulfonium salts

INVENTOR(S): Tsuchiya, Hiroshi; Morio, Kazuhiko; Murase, Hisashi; Okawa, Kazuo

PATENT ASSIGNEE(S): Asahi Denka Kogyo K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61212554	A	19860920	JP 1985-52040	19850315 <--
JP 04075908	B	19921202		

PRIORITY APPLN. INFO.: JP 1985-52040 19850315 <--

ED Entered STN: 05 Apr 1987

AB The title salts, photosensitive and useful as cationic polymerization initiators, were prepared as sulfates or hydrogen sulfates by reaction of aromatic sulfides containing ≥ 2 benzene rings directly connected through the sulfide linkage and H at ≥ 1 para position with sulfoxides RR_1SO (R, R_1 = aliphatic or aromatic group; RSR_1 may form a ring) in H_2SO_4 whereby the H was substituted with $RS+R_1$ group. Thus, 4.1 g Ph_2SO was dissolved in concentrated H_2SO_4 , treated with 1.8 g Ph_2S , and the mixture was poured into aqueous KPF_6 to give 7.6 g bis-[4-(diphenylsulfonio)phenyl] sulfide bis(hexafluorophosphate) with 98% purity.

IT **74227-35-3P 106611-10-3P**

RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of, as polymerization initiator)

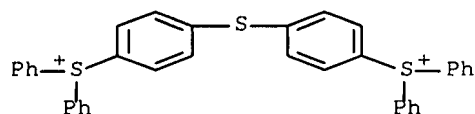
RN 74227-35-3 HCAPLUS

CN Sulfonium, (thiodi-4,1-phenylene)bis[diphenyl-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 74227-34-2

CMF C36 H28 S3

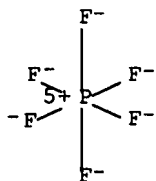


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



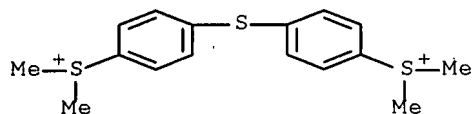
RN 106611-10-3 HCAPLUS

CN Sulfonium, (thiodi-4,1-phenylene)bis[dimethyl-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 106611-09-0

CMF C16 H20 S3

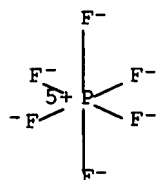


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



DOCUMENT NUMBER: 106:101867
 TITLE: Aromatic sulfonium salts containing organic hydroxyl groups
 INVENTOR(S): Tsuchiya, Hiroshi; Morio, Kazuhiko; Murase, Hisashi; Okawa, Kazuo
 PATENT ASSIGNEE(S): Asahi Denka Kogyo K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61212555	A	19860920	JP 1985-52041	19850315 <--
JP 04073428	B	19921120		

PRIORITY APPLN. INFO.: JP 1985-52041 19850315 <--

ED Entered STN: 05 Apr 1987

AB The title salts, photosensitive and useful as cationic polymerization initiators, were prepared by reaction of fluorinated aromatic sulfonium salts (with S directly connected with ≥ 1 benzene ring having ≥ 1 F atom at ortho or para position) and organic hydroxy compds. (and/or alkali metal derivs. and/or silyl derivs.) whereby the F was substituted with the hydroxyl-containing group. Thus, 4,4'-bis[bis(p-fluorophenyl)sulfonio]phenyl sulfide bis(hexafluorophosphate) was stirred with 10 equiv ethylene glycol in presence of 2 equiv NaOH at room temperature for 1 day to give 70% 4,4'-bis[bis(p-2-hydroxyethoxyphenyl)sulfonio]phenyl sulfide bis(hexafluorophosphate).

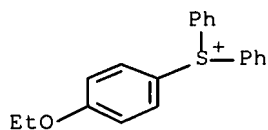
IT **106875-86-9P**
 RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (preparation of, as polymerization initiator)

RN 106875-86-9 HCAPLUS

CN Sulfonium, (4-ethoxyphenyl)diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

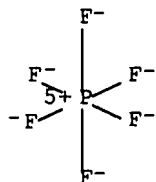
CM 1

CRN 106875-85-8
 CMF C20 H19 O S



CM 2

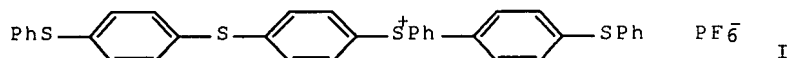
CRN 16919-18-9
 CMF F6 P
 CCI CCS



L33 ANSWER 58 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1986:590652 HCAPLUS Full-text
 DOCUMENT NUMBER: 105:190652
 TITLE: Triarylsulfonium salts
 INVENTOR(S): Crivello, James Vincent
 PATENT ASSIGNEE(S): General Electric Co., USA
 SOURCE: Ger. Offen., 24 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: **Patent**
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3537401	A1	19860424	DE 1985-3537401	19851021 <--
JP 61100557	A	19860519	JP 1985-234651	19851022 <--
JP 04062310	B	19921005		
US 5012001	A	19910430	US 1990-516842	19900430 <--
PRIORITY APPLN. INFO.:			US 1984-663643	A 19841022 <--
			US 1985-771744	A 19850903 <--

ED Entered STN: 28 Nov 1986
 GI



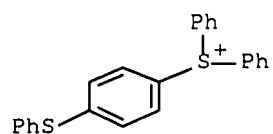
AB Triarylsulfonium polyhalometal or -metalloid salts are prepared by partial oxidation of polyaryl sulfides with a strong acid under dehydrating conditions. The triarylsulfonium salts obtained are reacted with an alkali or alkaline-earth metal polyhalometal or -metalloid salt. Thus, 4.75 g 40% AcOOH was treated drop-wise with a mixture of 14.7 g 1,4-bis(phenylthio)benzene, 20 mL AcOH, and 15 mL CH₂Cl₂ at 15°, followed by the addition of 15 mL AcOH at 10°, and of 50 mL concentrated H₂SO₄. The mixture was stirred for 2 h and treated with 300 mL water and 5 g KPF₆ in 50 mL water, to give 50% I. I is a photoinitiator, e.g. for the polymerization of 4-vinylcyclohexene dioxide.

IT **71449-78-0P 75482-17-6P 75482-18-7P**
 RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (preparation of, as polymerization photoinitiator)
 RN 71449-78-0 HCAPLUS
 CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, (OC-6-11)-
 hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 47480-44-4

CMF C24 H19 S2

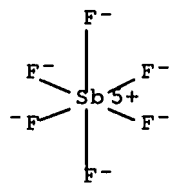


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS



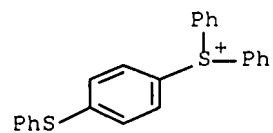
RN 75482-17-6 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, hexafluoroarsenate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 47480-44-4

CMF C24 H19 S2

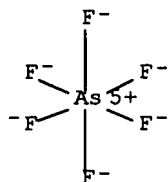


CM 2

CRN 16973-45-8

CMF As F6

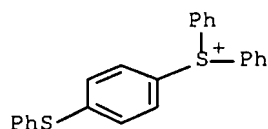
CCI CCS



RN 75482-18-7 HCAPLUS
 CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, hexafluorophosphate(1-) (9CI)
 (CA INDEX NAME)

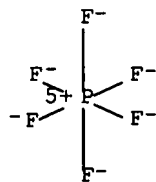
CM 1

CRN 47480-44-4
 CMF C24 H19 S2



CM 2

CRN 16919-18-9
 CMF F6 P
 CCI CCS



L33 ANSWER 59 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1986:51175 HCAPLUS Full-text
 DOCUMENT NUMBER: 104:51175
 TITLE: The synthesis and characterization of cationic photoinitiators bearing two and three photoactive triarylsulfonium groups in the same molecule
 AUTHOR(S): Crivello, J. V.; Conlon, D. A.; Lee, J. L.
 CORPORATE SOURCE: Gen. Electr. Corp. Res. Dev. Cent., NY, 12301, USA
 SOURCE: Polymer Bulletin (Berlin, Germany) (1985), 14(3-4), 279-86
 CODEN: POBUDR; ISSN: 0170-0839
 DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 23 Feb 1986

AB A series of photoinitiators for cationic polymerization were prepared which bear 2 and 3 photoactive triarylsulfonium groups in the same mol. These compds. were fully characterized by means of their UV and ^{13}C -NMR spectra and liquid chromatog., as well as by their elemental analyses. The multifunctional triarylsulfonium salts were compared among themselves and against monofunctional triarylsulfonium salts in the photoinitiated cationic polymerization of dl-limonene dioxide.

IT 74227-35-3P 100073-97-0P 100093-00-3P
100093-02-5P

RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of, as catalyst for polymerization of limonene dioxide)

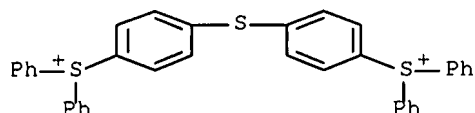
RN 74227-35-3 HCAPLUS

CN Sulfonium, (thiodi-4,1-phenylene)bis[diphenyl-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 74227-34-2

CMF C36 H28 S3

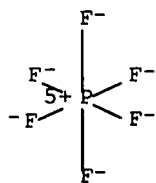


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



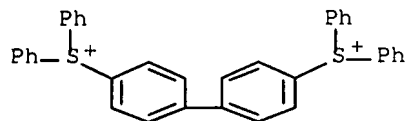
RN 100073-97-0 HCAPLUS

CN Sulfonium, [1,1'-biphenyl]-4,4'-diylbis[diphenyl-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 100073-96-9

CMF C36 H28 S2

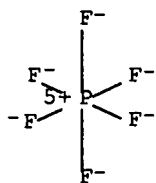


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



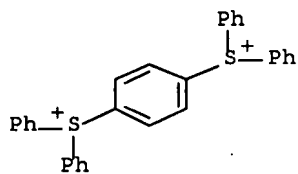
RN 100093-00-3 HCAPLUS

CN Sulfonium, 1,4-phenylenebis[diphenyl-, bis[hexafluorophosphate(1-)] (9CI)
(CA INDEX NAME)

CM 1

CRN 100092-99-7

CMF C30 H24 S2

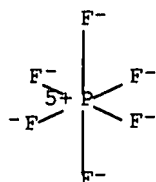


CM 2

CRN 16919-18-9

CMF F6 P

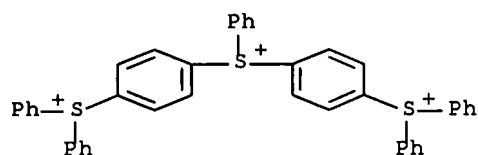
CCI CCS



RN 100093-02-5 HCAPLUS
 CN Sulfonium, bis[4-(diphenylsulfonio)phenyl]phenyl-,
 tris[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

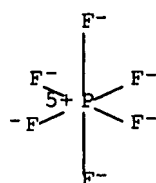
CM 1

CRN 100093-01-4
 CMF C42 H33 S3



CM 2

CRN 16919-18-9
 CMF F6 P
 CCI CCS



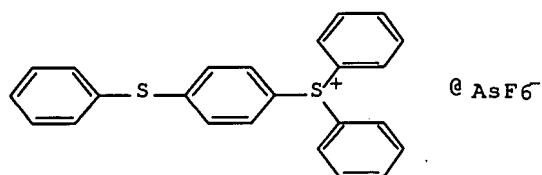
L33 ANSWER 60 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1983:180499 HCAPLUS Full-text
 DOCUMENT NUMBER: 98:180499
 TITLE: Triarylsulfonium salts
 INVENTOR(S): Crivello, James V.; Lee, Julia L.
 PATENT ASSIGNEE(S): General Electric Co., USA
 SOURCE: U.S., 8 pp. Cont.-in-part of U.S. Ser. No. 79,692,
 abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4374066	A	19830215	US 1980-200769	19801027 <--
ZA 8005273	A	19811125	ZA 1980-5273	19800826 <--
GB 2061280	A	19810513	GB 1980-29024	19800909 <--
GB 2061280	B	19840516		
CA 1120181	A1	19820316	CA 1980-361443	19800925 <--
FR 2466457	A1	19810410	FR 1980-20689	19800926 <--
FR 2466457	B1	19850308		
JP 56055420	A	19810516	JP 1980-133103	19800926 <--
JP 63036332	B	19880720		
ES 495420	A1	19811016	ES 1980-495420	19800926 <--
AU 8062780	A	19810409	AU 1980-62780	19800929 <--
AU 539699	B2	19841011		
BR 8006335	A	19810414	BR 1980-6335	19800929 <--
			US 1979-79692	A2 19790928 <--

PRIORITY APPLN. INFO.:
OTHER SOURCE(S): MARPAT 98:180499
ED Entered STN: 12 May 1984
GI



AB Triarylsulfonium salts such as I [75482-17-6] are prepared by a method based on the reaction of an aromatic hydrocarbon S_2Cl_2 , and Cl in the presence of a Friedel-Crafts catalyst. The triarylsulfonium salts are used as cationic photoinitiators to effect the deep-section cure of organic resin compns. Thus, a mixture of Ph_2S [139-66-2] 37.2, $AlCl_3$ 13.34, and Cl 9.5 parts was stirred and poured onto 500 parts ice. The semisolid was washed with H_2O . Then 27.8 parts $AsF_6^- K^+$ and 500 parts H_2O were added to the residue and the mixture stirred at 30° for 1 h. The product was washed with H_2O then with anhydrous Et_2O and dried at 60° for 16 h. The product was then recrystd. from 95% $EtOH$ to give 31% yield of I having m.p. $77-87^\circ$. Films from a 3% solution of I in 3,4-epoxycyclohexylmethyl 3',4'-epoxycyclohexane carboxylate [2386-87-0] were radiation-cured in 1 min to a maximum thickness of 50 mils, compared with 15 mils for a similar film containing $Ph_3S^+ AsF_6^-$.

IT 75482-17-6P 75482-28-9P 75482-29-0P

RL: PREP (Preparation)

(preparation of, as photoinitiators for deep cure of polymers)

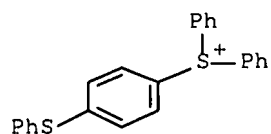
RN 75482-17-6 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylthio)phenyl]-, hexafluoroarsenate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 47480-44-4

CMF C24 H19 S2

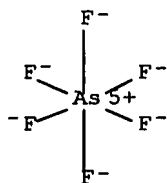


CM 2

CRN 16973-45-8

CMF As F6

CCI CCS



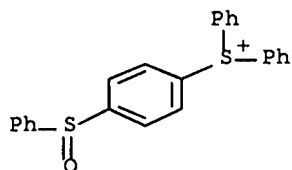
RN 75482-28-9 HCAPLUS

CN Sulfonium, diphenyl[4-(phenylsulfinyl)phenyl]-, hexafluoroarsenate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 75482-27-8

CMF C24 H19 O S2

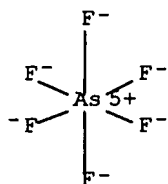


CM 2

CRN 16973-45-8

CMF As F6

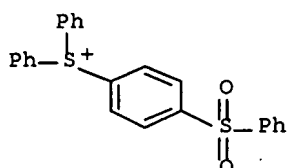
CCI CCS



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 (9CI) (CA INDEX NAME)

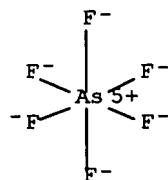
CM 1

CRN 47572-95-2
 CMF C24 H19 O2 S2



CM 2

CRN 16973-45-8
 CMF As F6
 CCI CCS



L33 ANSWER 61 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1982:582904 HCAPLUS Full-text
 DOCUMENT NUMBER: 97:182904
 TITLE: Some studies on the photoinitiated cationic polymerization of epoxides
 AUTHOR(S): Davidson, R. S.; Goodin, J. W.
 CORPORATE SOURCE: Dep. Chem., City Univ., London, EC1V 0HB, UK
 SOURCE: European Polymer Journal (1982), 18(7), 589-95
 CODEN: EUPJAG; ISSN: 0014-3057

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

AB Alkylarylsulfonium compds. were prepared by alkylating diaryl sulfides with Et3O+ PF6- [17950-40-2] and by treating diaryl sulfides with alkyl halides in the presence of AgBF4. Photolysis of the sulfonium salts in MeOH gave diaryl sulfides and, in the case of triarylsulfonium compds., the corresponding aromatic hydrocarbon and its Me ether. Ph2I+ BF4- [313-39-3] and Ph2I+ F6- [58109-40-3] gave aryl fluorides, biaryls, and aromatic hydrocarbons. The salts decomposed by radical and ionic pathways. The ability of the compds. to sensitize the polymerization of epoxides depended on the counterion, PF6- being more efficient than BF4-, and on the structure of the cation. In sensitized cationic polymerization, excited singlet and triplet state sensitizers were both effective.

IT 82135-87-3P 83569-03-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

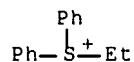
RN 82135-87-3 HCAPLUS

CN Sulfonium, ethyldiphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 29245-67-8

CMF C14 H15 S

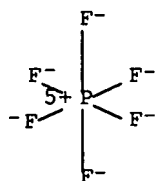


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



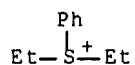
RN 83569-03-3 HCAPLUS

CN Sulfonium, diethyldiphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 45885-54-9

CMF C10 H15 S

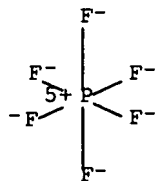


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CRN 16919-18-9

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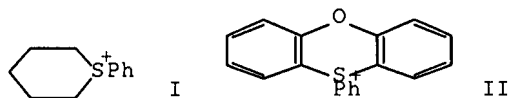
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L33 ANSWER 62 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1981:482046 HCAPLUS Full-text
 DOCUMENT NUMBER: 95:82046
 TITLE: Stable arylsulfonium salt-solvent mixture
 INVENTOR(S): Crivello, James Vincent
 PATENT ASSIGNEE(S): General Electric Co., USA
 SOURCE: Fr. Demande, 18 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: **Patent**
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 20
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2459265	A1	19810109	FR 1980-13414	19800617 <--
FR 2459265	B1	19830520		
US 4273668	A	19810616	US 1979-49296	19790618 <--
PRIORITY APPLN. INFO.:			US 1979-49296	A 19790618 <--
			US 1974-466374	A2 19740502 <--
			US 1974-466375	A 19740502 <--
			US 1974-466378	A 19740502 <--
			US 1975-574006	A3 19750502 <--
			US 1977-789419	A2 19770421 <--
			US 1977-833146	A2 19770914 <--

ED Entered STN: 12 May 1984
 GI



AB A stable mixture of a triarylsulfonium salt (e.g., hexafluoroantimonate) and a C2-3-alkylene carbonate is prepared for use as a photohardening catalyst for epoxy resins. The mixture gives cured resins with greater hardness than resins cured in the absence of the carbonate. $\text{Ph}_3\text{Se}^+ \text{AsF}_6^-$ [57900-43-3], $\text{Ph}_3\text{Se}^+ \text{SbF}_6^-$ [57836-00-7], $\text{Ph}_3\text{Se}^+ \text{BF}_4^-$ [437-14-9], and 24 arylsulfonium salts with AsF_6^- , SbF_6^- , or PF_6^- as the anion and with Ph_3S^+ , p-(Me₃C)C₆H₄S+Ph₂, I, II, or a similar group as the sulfonium group are prepared for use as photopolymer. or photocrosslinking catalysts, e.g., for epoxy resins and styrene oxide. Thus, 26 parts NaSbF₆ [16925-25-0] in 80 parts propylene carbonate (III) [108-32-7] was treated with 59.7 parts 50% aqueous $\text{Ph}_3\text{S}^+ \text{Cl}^-$ [4270-70-6] and freed of NaCl to prepare a solution of 50% $\text{Ph}_3\text{S}^+ \text{SbF}_6^-$ [57840-38-7] in III. The solution was stable in an open container for >12 mo. The solution was used (4%) as a catalyst for the photohardening of 3,4-epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate.

IT 57840-38-7P 57900-42-2P

RL: PREP (Preparation)

(preparation and use as catalysts for photopolymer. of epoxy compds.)

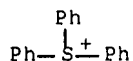
RN 57840-38-7 HCAPLUS

CN Sulfonium, triphenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 18393-55-0

CMF C18 H15 S

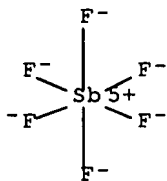


CM 2

CRN 17111-95-4

CMF F6 Sb

CCI CCS

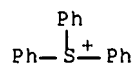


RN 57900-42-2 HCAPLUS

CN Sulfonium, triphenyl-, hexafluoroarsenate(1-) (9CI) (CA INDEX NAME)

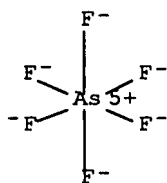
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CRN 18393-55-0
CMF C18 H15 S



CM 2

CRN 16973-45-8
CMF As F6
CCI CCS



IT 66482-47-1P 66482-48-2P 66482-50-6P
66482-51-7P 66482-56-2P 69846-31-7P
70084-26-3P 70177-22-9P

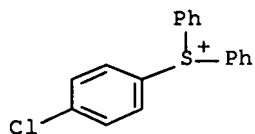
RL: PREP (Preparation)
(preparation of)

RN 66482-47-1 HCAPLUS

CN Sulfonium, (4-chlorophenyl)diphenyl-, hexafluoroarsenate(1-) (9CI) (CA
INDEX NAME)

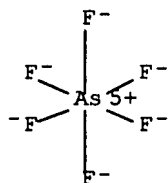
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CRN 47045-32-9
CMF C18 H14 Cl S



CM 2

CRN 16973-45-8
CMF As F6
CCI CCS

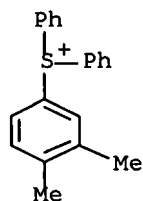


RN 66482-48-2 HCAPLUS
 CN Sulfonium, (3,4-dimethylphenyl)diphenyl-, hexafluoroarsenate(1-) (9CI)
 (CA INDEX NAME)

CM 1

CRN 47127-70-8

CMF C20 H19 S

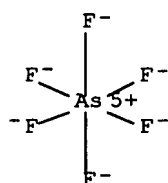


CM 2

CRN 16973-45-8

CMF As F6

CCI CCS

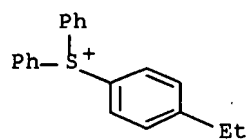


RN 66482-50-6 HCAPLUS
 CN Sulfonium, (4-ethylphenyl)diphenyl-, hexafluoroarsenate(1-) (9CI) (CA
 INDEX NAME)

CM 1

CRN 66482-49-3

CMF C20 H19 S

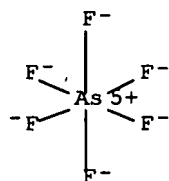


CM 2

CRN 16973-45-8

CMF As F6

CCI CCS



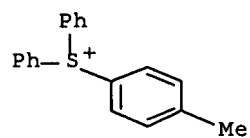
RN 66482-51-7 HCAPLUS

CN Sulfonium, (4-methylphenyl)diphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

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CRN 47045-31-8

CMF C19 H17 S

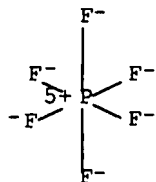


CM 2

CRN 16919-18-9

CMF F6 P

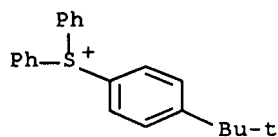
CCI CCS



RN 66482-56-2 HCAPLUS
 CN Sulfonium, [4-(1,1-dimethylethyl)phenyl]diphenyl-, hexafluorophosphate(1-)
 (9CI) (CA INDEX NAME)

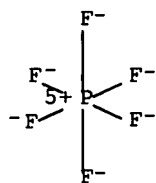
CM 1

CRN 66482-54-0
 CMF C22 H23 S



CM 2

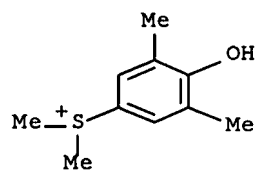
CRN 16919-18-9
 CMF F6 P
 CCI CCS



RN 69846-31-7 HCAPLUS
 CN Sulfonium, (4-hydroxy-3,5-dimethylphenyl)dimethyl-, hexafluoroarsenate(1-)
 (9CI) (CA INDEX NAME)

CM 1

CRN 57836-01-8
 CMF C10 H15 O S

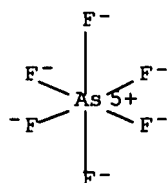


CM 2

CRN 16973-45-8

CMF As F6

CCI CCS



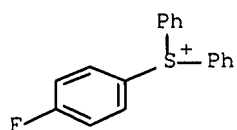
RN 70084-26-3 HCAPLUS

CN Sulfonium, (4-fluorophenyl)diphenyl-, hexafluoroarsenate(1-) (9CI) (CA INDEX NAME)

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CRN 70084-25-2

CMF C18 H14 F S

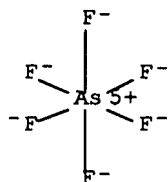


CM 2

CRN 16973-45-8

CMF As F6

CCI CCS

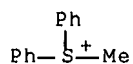


RN 70177-22-9 HCAPLUS
 CN Sulfonium, methyldiphenyl-, hexafluoroarsenate(1-) (9CI) (CA INDEX NAME)

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CRN 29245-68-9

CMF C13 H13 S

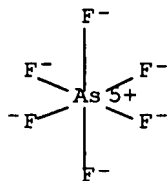


CM 2

CRN 16973-45-8

CMF As F6

CCI CCS



L33 ANSWER 63 OF 63 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1979:458187 HCAPLUS Full-text
 DOCUMENT NUMBER: 91:58187
 TITLE: Catalytic solutions of sulfonium salts
 INVENTOR(S): Tsao, Jung-Hsien; Ketley, Arthur D.
 PATENT ASSIGNEE(S): W. R. Grace and Co., USA
 SOURCE: U.S., 5 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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Serial No.:10/562,444

US 4154872	A	19790515	US 1978-904158	19780509 <--
US 4179400	A	19791218	US 1979-6322	19790125 <--
PRIORITY APPLN. INFO.:			US 1978-904158	A3 19780509 <--

ED Entered STN: 12 May 1984

AB Photocatalytic solns. of a sulfonium salt of a complex anion, capable of yielding a Lewis acid when irradiated, are preped. by reaction of a sulfonium halide with an alkali metal or NH₄ salt of the complex anion in a solvent mixture containing a polyol and a lactone and removal of the alkali metal or NH₄ halide byproduct by filtration. The composition mixes readily with epoxy resin formulations for photochem. crosslinking. Thus, Ph₃S⁺ PF₆⁻ [57835-99-1] was prepared by stirring at room temperature a mixture of a 50% polypropylene glycol [25322-69-4] solution of Ph₃S⁺ Cl⁻ 10, KPF₆ 31, and γ-butyrolactone [96-48-0] 25 parts. Within 0.5 h a homogeneous solution was obtained after KCl removal. The catalyst solution (10%) was formulated with 90% of an epoxy blend comprising 3,4-epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate 60, bisphenol A diglycidyl ether 14, 1,4-butanediol diglycidyl ether 5, silicone oil 0.75, and surfactant 0.25 part. A film (0.0012 cm thick) of the composition on a steel plate was cured to an adherent, tack-free coating in 1 pass through a UV unit at 0.9 s exposure and conveyer speed 30.5 m/min.

IT 57835-99-1P

RL: CAT (Catalyst use); **PREP (Preparation)**; USES (Uses)
(catalysts, photocatalytic solns. of, preparation of, for crosslinking of epoxy resins)

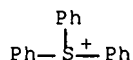
RN 57835-99-1 HCAPLUS

CN Sulfonium, triphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 18393-55-0

CMF C18 H15 S

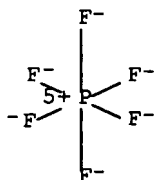


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



Search History

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        I OR 16925-25-0/BI OR 17084-13-8/BI OR 1774-35-2/BI OR
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        BI OR 724460-77-9/BI OR 73241-56-2/BI OR 75482-18-7/BI OR
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L6      2370 SEA SUB=L1 SSS FUL L2

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L9      148 SEA ABB=ON  PLU=ON  L7 AND L8

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L18     STRUCTURE UPLOADED
L19     35 SEA SUB=L15 SSS SAM L18
L20     879 SEA SUB=L15 SSS FUL L18

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L23     55 SEA ABB=ON  PLU=ON  L22 AND P/DT
L24     49 SEA ABB=ON  PLU=ON  L23 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)

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L26     17 SEA ABB=ON  PLU=ON  L25 AND PY<=2003
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L30     4439 SEA ABB=ON  PLU=ON  YAMASHITA S?/AU
L31     2078 SEA ABB=ON  PLU=ON  YAMAMOTO J?/AU
L32     3 SEA ABB=ON  PLU=ON  (L28 OR L29 OR L30 OR L31) AND L21
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